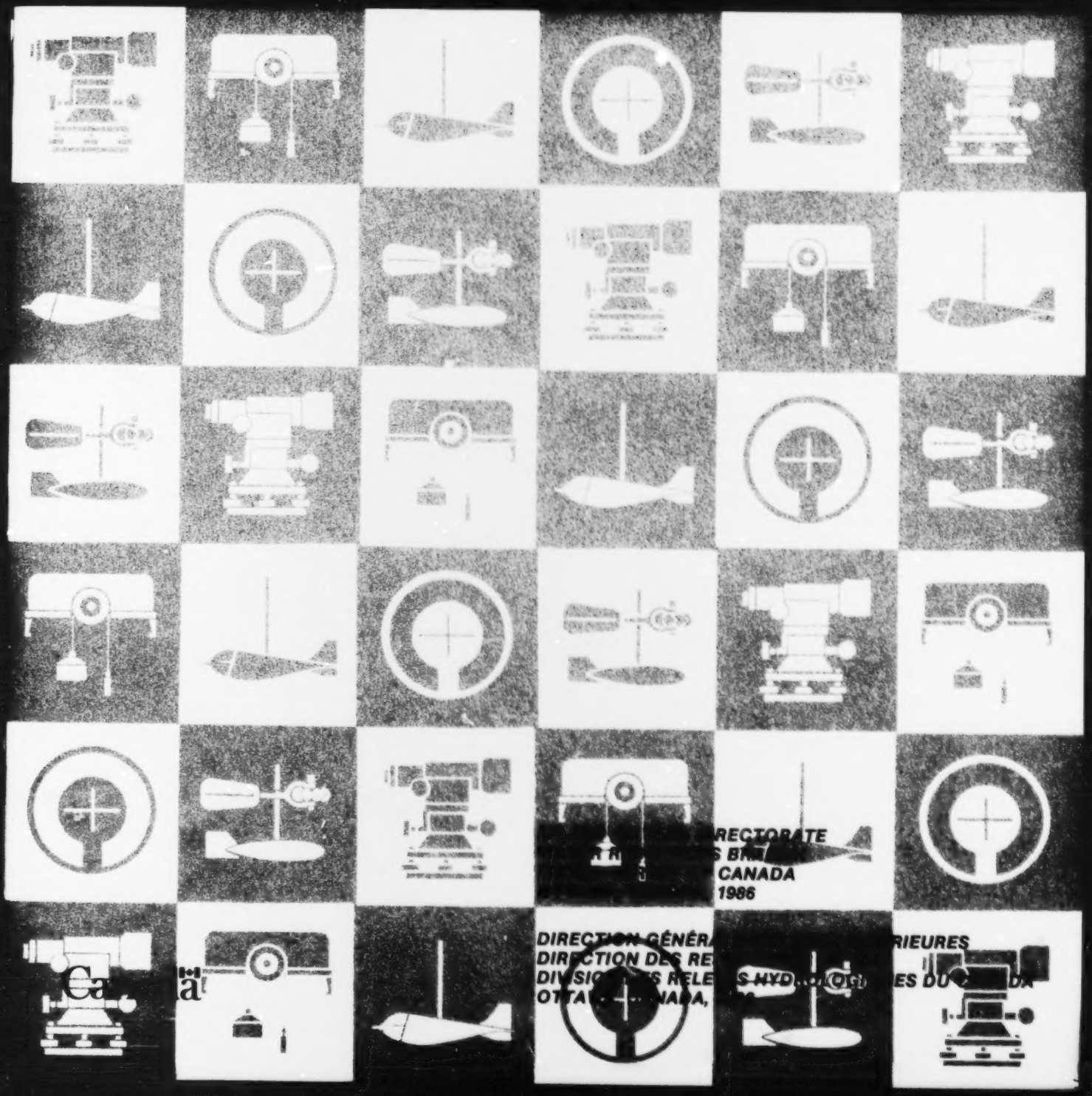
Sediment Data

Saskatchewan

Données sur les sédiments

1984



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Environment Canada Environnement Canada

Sediment Data

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Données sur les sédiments

1984

INLAND WATERS DIRECTORATE
WATER RESOURCES BRANCH
WATER SURVEY OF CANADA
OTTAWA, CANADA, 1986

DIRECTION GÉNÉRALE DES EAUX INTÉRIEURES
DIRECTION DES RESSOURCES EN EAU
DIVISION DES RELEVÉS HYDROLOGIQUES DU CANADA
OTTAWA, CANADA, 1986

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PREFACE

This publication was prepared by personnel of the Sediment Survey Section, Water Survey of Canada Division, under the direction of the Director, Water Resources Branch, Department of the Environment, Ottawa.

The basic data were collected and compiled under the supervision of the Regional Chief of the Water Resources Branch at Regina, Saskatchewan.

The co-operation received from provincial agencies and from other organizations is gratefully acknowledged.

PRÉFACE

Le groupe d'étude des sédiments de la Division des relevés hydrologiques du Canada, sous l'autorité du directeur des Ressources en eau du ministère de l'Environnement, à Ottawa, a préparé la présente publication.

Le chef régional de la Direction des ressources en eau, à Regina (Saskatchewan), a supervisé la collecte et la compilation des données de base.

Nous remercions vivement les organismes provinciaux, ou autres, pour leur collaboration.

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INTRODUCTION

The Water Resources Branch of the Department of the Environment herein presents for the 1984 calendar year, the results of the sediment survey investigations conducted in Saskatchewan by the Water Survey of Canada.

Data on the character and quantity of fluvial sediments provided by sediment survey investigations are intended for use in studies of water quality, environmental impacts, river processes and behaviour, and engineering design.

General introductory information on the sediment survey is included in this publication. Similar information for the associated hydrometric survey is given in the regular publications containing surface water data.

Details on individual stations and related records, as well as recent data that have not yet been published, may be obtained upon application to:

Regional Chief,
Water Resources Branch,
Department of the Environment,
G.M.C. Building,
1102-8th Avenue,
Regina, Saskatchewan.
S4R 1C9

or to the Director, Water Resources Branch, Department of the Environment, Ottawa, Ontario, K1A 0E7.

INTRODUCTION

Dans la présente publication de la Direction des ressources en eau du ministère de l'Environnement, on trouvera les résultats des études des sédiments effectuées dans les cours d'eau de la Saskatchewan par la Division des relevés hydrologiques du Canada au cours de l'année civile 1984.

Les données recueillies sur la nature et l'importance de la charge solide dans les cours d'eau doivent servir aux études portant sur la qualité des eaux, les incidences environnementales, les processus fluviaux, le comportement des cours d'eau et la conception de projets.

La presente publication contient des renseignements généraux préliminaires sur les études des sédiments. Des renseignements semblables sur les études hydrométriques connexes sont contenus dans les publications régulières présentant des données sur les eaux de surface.

On peut obtenir des renseignements supplémentaires sur les stations et les relevés, ainsi que des données récentes non encore publiées, en s'adressant au:

Chef régional
Direction des ressources en eau
Ministère de l'Environnement
Édifice G.M.C.
1102, Huitième avenue
Regina (Saskatchewan)
S4R 1C9

ou au directeur des Ressources en eau, ministère de l'Environnement, Ottawa (Ontario), K1A 0E7.

SCOPE OF PUBLICATION

Descriptive information about sediment stations is given. This refers to the Location, Latitude and Longitude, Drainage Area and whether the flow is Natural Flow or Regulated Flow (the year that regulation began is given, if known), Type of Gauge and the Total Suspended Sediment Load in Tonnes for the Period of Record is also included. International Gauging Stations are identified and the names of co-operating agencies who supply data are given; unusual conditions at the sediment station that could effect the data results are explained under "Remarks".

This publication contains data on streamflow, instantaneous suspended sediment concentration; daily mean suspended sediment concentration; daily suspended sediment loads; dissolved solids concentration; load summary; particle-size distribution of suspended sediment in percent sand, silt and clay; bed load and bed material; water temperature when samples were collected; type of sampler and the single sampling vertical location.

A historical sediment data summary includes such information as Sampled Concentration Maximum and Minimum; Suspended Sediment Load Maximum Daily and the Total for Period. The Period of Record and the Type of Operation for each year of data are also given. A Summary for the Months of record gives the Period of Record Mean, the Mean for Period of Record and the Standard Error of Mean as a percent.

ORGANIZATION AND HISTORY OF SEDIMENT SURVEYS IN CANADA

In Canada, investigations of sediment transported by streams were first undertaken by individual organizations or agencies in 1948, to meet the needs of federal and provincial agencies for assessment of particular projects. Although the investigations were extended to meet expanding needs after 1948, it was not until 1961 that a systematic survey was undertaken by the Water Resources Branch.

The sediment survey program has the following objectives:

(1) Collection and provision of data related to sediment transport in Canadian rivers for applications in water resource engineering, water quality and environmental studies.

(2) Provision of information and advice related to sediment transport.

(3) Assessment, improvement and standardization of equipment and techniques used in Canada's sediment survey program.

PORTÉE DE LA PUBLICATION

Des données descriptives sont présentées sur les stations d'étude des sédiments. Elles concernent leur emplacement, leurs latitude et longitude, leur bassin versant, la nature de débit (naturel ou régularisé, avec indication, le cas échéant, de l'année où la régularisation a commencé, si elle est connue), le type d'instrument de mesure employé et le débit total des sédiments en suspension (en tonnes) pour la période de relevé. Les stations internationales de jaugeage sont indiquées, ainsi que le nom des organismes qui fournissent les données. Des explications concernant des conditions exceptionnelles qui ont pu influer sur les résultats sont présentées dans la partie «Remarques».

Cette publication renferme des données sur le débit des cours d'eau, les concentrations instantanées de sédiments en suspension, les concentrations journalières moyennes de sédiments en suspension, les débits journaliers de sédiments en suspension, les concentrations de matières dissoutes, les débits solides totaux (résumés), la granulométrie des sédiments en suspension exprimée en pourcentage de sable, de limon et d'argile, le charriage et les matériaux du lit, la température de l'eau au moment de l'échantillonnage, le type d'échantillonneur employé et l'emplacement des verticales de prélèvement d'échantillons uniques.

Un résumé des données historiques sur les sédiments est inclus. On y trouve divers renseignements comme les concentrations maximale et minimale mesurées, le débit journalier maximal des sédiments en suspension et le total pour la période. La période de relevé et le type d'exploitation des stations sont indiqués pour chaque année. Dans un résumé pour les mois de relevé, on donne la moyenne pour chaque période et pour l'ensemble des périodes de relevé ainsi que l'erreur-type de la moyenne, en pourcentage.

ORGANISATION ET HISTORIQUE DES ÉTUDES DES SÉDIMENTS AU CANADA

Au Canada, les études dans ce domaine ont débuté en 1948 en réponse aux besoins exprimés par certains organismes fédéraux et provinciaux pour l'évaluation de projets donnés et étaient le fait d'organismes privés. Bien que les études se soient poursuivies après 1948 pour satisfaire aux besoins accrus, ce n'est qu'en 1961 que la Direction des ressources en eau les a entreprises de façon systématique.

Les buts de ces études sont de:

(1) réunir et produire des données sur les transports solides dans les cours d'eau canadiens, données dont on peut avoir besoin pour des études concernant l'environnement, la qualité des eaux et la conception de projets portant sur les ressources en eau.

(2) produire des informations concernant les transports solides.

(3) évaluer, améliorer et uniformiser le matériel et les techniques employés dans le programme d'étude des sédiments au Canada.

PUBLICATION OF SURFACE WATER AND SEDIMENT DATA

Sediment data have been published in a variety of formats since the beginning of the Sediment Survey Program.

During the years 1948 to 1960, some sediment data were collected for several Prairie rivers to meet the needs of particular projects. The first Water Resources Paper series containing sediment data incorporated a selection of these data and also data for part of the year ending September 30, 1961, at stations established for the continuing program. The second issue was a biennial publication covering only the continuing program for the 1962 and 1963 water years. All subsequent editions titled *Sediment Data Canadian Rivers* have been published annually. The sediment data since 1978 have been presented entirely in the International System of Units (SI).

Commencing with 1984, the *Sediment Data* are presented and published in a new format wherein Canada is divided into eight regions. The provinces each represent a separate region except for New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island, which together form the Atlantic Provinces region, and the Yukon and Northwest Territories which make up another. The publications are identified by the province or territories covered and the year in which the data were collected. These data are published annually on a calendar-year basis and the stations are listed alphabetically.

The first edition of a *Sediment Data Reference Index* was published for data to 1972. It contains a tabulation of locations in Canada where sediment data were collected by the Water Survey of Canada. The index has been subdivided alphabetically by province or territory, with sediment survey stations also listed alphabetically. Commencing with the 1978 publication, data are presented in the International System of Units (SI) and will continue to be published biennially. The latest edition supersedes all previous editions because it contains any corrections or additions since the last publication.

The first edition of a new publication series titled *Historical Sediment Data Summary for Canadian Rivers* was produced for data to 1974. This publication contains a summary of historical monthly and annual mean suspended sediment load, and annual extremes of daily suspended sediment concentration and loads and total annual suspended load. Commencing with the 1978 publication, data are presented entirely in the International System of Units (SI). This publication has been discontinued, as much of the information is now included in the new annual *Sediment Data* publication.

PUBLICATION DES DONNÉES SUR LES EAUX DE SURFACE ET LES SÉDIMENTS

Depuis le début du programme d'étude des sédiments, la présentation des données a varié.

De 1948 à 1960, on a recueilli des données pour plusieurs cours d'eau des Prairies en prévision de la réalisation de certains projets. La première publication contenant des données sur les sédiments a paru dans la série intitulée *Water Resources Paper*; elle présentait un choix de ces données ainsi que des données recueillies en 1961 avant le 30 septembre à des stations établies pour la réalisation du programme permanent. La deuxième publication a porté sur les données recueillies dans le cadre du programme au cours des années hydrologiques 1962 et 1963. Par la suite, les données ont été publiées annuellement sous le titre *Données sur les sédiments - rivières canadiennes*. Depuis 1978, les données sont exprimées en unités du Système international (SI).

En 1984, la présentation des données a été modifiée. Le Canada a été divisé en huit régions, une région pour chaque province, sauf le Nouveau-Brunswick, Terre-Neuve, la Nouvelle-Écosse et l'Île-du-Prince-Édouard qui, ensemble, forment la région des provinces de l'Atlantique, et les Territoires du Yukon et du Nord-Ouest, qui forment une autre région. Les publications sont nommées selon la région couverte et l'année des données (année civile). Ces publications sont annuelles. Les stations y sont présentées par ordre alphabétique.

Un *Index de référence des données sur les sédiments* est publié. La première édition portait sur les données disponibles jusqu'en 1972. Les emplacements où des données sur les sédiments ont été recueillies au Canada par la Division des relevés hydrologiques y sont présentés sous forme de tableau. L'*Index* est subdivisé selon l'ordre alphabétique par province ou territoire, et les stations de mesure des sédiments sont classées par ordre alphabétique. À partir de 1978, les données sont exprimées en unités du Système international (SI). L'*Index* est publié tous les deux ans; l'édition la plus récente annule toutes les éditions antérieures, car elle renferme toutes les corrections et mises à jour effectuées depuis la dernière parution.

Une autre série de publications a porté le titre *Sommaire chronologique des données sur les sédiments de rivières canadiennes*. La première édition renfermait les données disponibles jusqu'en 1974. Cette série présentait un résumé donnant les moyennes mensuelles et annuelles historiques du débit des sédiments en suspension, les valeurs annuelles extrêmes de la concentration journalière et du débit journalier des sédiments en suspension et le débit annuel total des sédiments en suspension. À partir de 1978, les données ont été présentées en unités du Système international (SI). Cette série a été abandonnée, car une bonne partie de l'information est maintenant contenue dans la nouvelle publication annuelle intitulée *Données sur les sédiments*.

COLLECTION AND PROCESSING OF BASIC DATA

1. *Equipment and Instrumentation*

The sediment survey program of the Water Resources Branch is conducted in cross sections on rivers selected specifically for the sediment survey or for the hydrometric survey. Certain cross sections are located at traffic bridges, while others are equipped with cableways, or automatic pump samplers.

The following sediment samplers have been used in the sediment survey program:

(a) Depth-integrating suspended sediment wading-type hand sampler, USDH-48, used on small streams or during winter periods.
(b) Depth-integrating suspended sediment sampler, USDH-59, used as a handline suspension for small and medium size streams.
(c) Depth-integrating suspended sediment samplers, USD-49, and USD-74, used on a reel suspension for medium and large streams whose depths are less than five metres.
(d) Point-integrating suspended sediment samplers, USP-61, USP-61-A1, USP-63, and USP-72, used for point-integrating sampling, or depth-integrating sampling if the depth is over five metres, or in a cross section with a very high velocity.
(e) Automatic pump sampler is an automatic pumping system permitting unattended collecting and bottling of individual water samples pumped from a fixed point in a stream. This sampler is normally installed at isolated locations where otherwise no data would be available during ice break-up or peak periods.
(f) Bed material sampler, USBM-54, used on large or deep streams or on those streams with hard-packed streambeds.
(g) Bed material sampler USBMH-60, used on some large or deep streams or on those streams with soft-packed streambeds.
(h) Bed material sampler USBMH-53 used on some small or shallow streams.
(i) Lane bed material sampler, a drag-type sampler used on small streams or those with soft streambeds.

2. *Hydrometric Surveys*

The hydrometric survey includes the standard procedures for observations of water levels, streamflow measurements, water surface slope determinations if required, and observations of water temperature. The streamflow measurements are made in conjunction with the sediment load measurements and conform to the accepted standards of the regular hydrometric survey.

3. *Sediment Sampling Program*

The following is a summary of the elements associated with the Sediment Sampling Program:

(a) Periodic measurement of suspended sediment load by the

COLLECTE ET TRAITEMENT DES DONNÉES DE BASE

1. *Matériel*

L'étude des sédiments réalisée par la Direction des ressources en eau porte sur des sections transversales de cours d'eau choisis spécialement à cette fin ou pour les relevés hydrométriques. Certaines sections sont situées sous un pont, d'autres sont accessibles par téléphérique, ou sont étudiées à l'aide d'un échantillonneur sous pression.

On a utilisé les échantillonneurs suivants:

(a) L'échantillonneur intégrateur selon la profondeur, type simple, USDH-48, employé dans les cours d'eau peu profonds ou en hiver;
(b) L'échantillonneur intégrateur selon la profondeur USDH-59, utilisé comme une ligne dans les cours d'eau petits et moyens;
(c) Les échantillonneurs intégrateurs selon la profondeur USD-49 et USD-74 fixés au bout d'une corde s'enroulant autour d'un moulinet et employés dans les cours d'eau gros ou moyens dont la profondeur est inférieure à cinq mètres;
(d) Les échantillonneurs intégrateurs USP-61, USP-61-A1, USP-63 et USP-72, employés ponctuellement ou sur toute la verticale, et utilisés lorsque la profondeur est supérieure à cinq mètres ou dans les sections transversales qui connaissent un débit très élevé;
(e) Un échantillonneur automatique permettant le prélèvement en bouteilles, sans surveillance, d'échantillons uniques d'eau obtenus à l'aide d'une pompe en un point précis d'un cours d'eau; il est ordinairement installé dans un endroit isolé où aucune donnée ne pourrait être obtenue autrement au cours de la débâcle ou des périodes de débit de pointe;
(f) L'échantillonneur USBM-54 employé pour le prélèvement d'échantillons des matériaux du lit dans les cours d'eau importants ou profonds ou dans les cours d'eau dont le fond est dur;
(g) L'échantillonneur USBMH-60 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau importants ou profonds, ou dans les cours d'eau dont le fond est meuble;
(h) L'échantillonneur USBMH-53 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau petits ou peu profonds;
(i) La drague employée pour le prélèvement d'échantillons des matériaux du lit dans de petits cours d'eau ou dans des cours d'eau dont le fond est meuble.

2. *Relevés hydrométriques*

Le relevé hydrométrique comprend, entre autres, l'observation de la hauteur des eaux, la mesure du débit de l'eau, la détermination de la pente de la ligne d'eau, si nécessaire, ainsi que l'observation de la température de l'eau. Les mesures du débit de l'eau et du débit des sédiments se font conjointement, suivant les méthodes acceptées.

3. *Échantillonnage des sédiments des cours d'eau*

L'échantillonnage comporte, en gros, les éléments suivants:

(a) La mesure périodique du débit des sédiments en suspension par la méthode d'intégration sur toute la profondeur

depth-integrating method for determining the average suspended sediment concentration in the cross section.

(b) Single suspended sediment samples at a selected vertical for determining the sediment concentration for the days when suspended sediment load measurements are not taken.

(c) Limited measurement of suspended sediment load by the point-integrating method for checking depth-integrated measurements and for determining particle-size distribution in the cross section.

(d) Sampling of bed material for determining particle-size distribution.

(e) Periodic measurement of bed load.

The following is a brief explanation of the elements listed above:

(a) *Suspended Sediment Load by Depth-Integrating Method*: Measurements are made by the depth-integrating method to determine the suspended sediment load carried in the entire cross section of a stream, the average suspended sediment concentration in the cross section, and the size distribution of the sediment particles. It is known that the concentration of suspended sediment tends to increase from the water surface to the streambed and could vary from streambank to streambank.

When making suspended sediment equal-discharge-increment (EDI) measurements, the stream cross section is divided into at least five equal-flow portions and a representative suspended sediment sample is collected from each portion. For each part of the cross section, the suspended sediment load (r) may then be computed by multiplying the flow (q) by the suspended sediment concentration (c):

$$r = q\ c$$

The suspended sediment load (R) for the cross section may be computed by adding the sediment loads for the five equal-flow portions:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

The depth-integrating method of sampling is used to measure the suspended sediment concentration. This method is based on the premise that the sampler fills at a rate proportional to the velocity of the approaching flow, and that by traversing the depth of a stream at a uniform speed, the sampler will receive a portion of water sediment mixture at every point in the vertical.

(b) *Single Suspended Sediment Samples at a Selected Vertical*: Single suspended sediment samples, consisting of two bottles each, are collected routinely using the depth or point-integrating samplers at a permanently fixed vertical in a cross section. During periods of very heavy sediment concentration, two or three single sediment samples may be taken per day, while during periods of low concentration, one single sediment sample may only be taken every few days. During extremely low flow periods, the sampling may be limited to one single sample in several weeks or months.

(c) *Suspended Sediment Load by Point-Integrating Method*: A limited number of suspended sediment load measurements are made by the point-integrating method. These measurements are included in the program (a) to check by comparison the "measured" sediment loads obtained by the depth-integrating method with the suspended sediment loads by the point-integrating method and (b) to obtain samples from which to determine particle-size distribution

pour la détermination de la concentration moyenne dans une section transversale;

(b) Le prélèvement d'échantillons uniques des sédiments en suspension selon une verticale choisie, afin de déterminer la concentration des sédiments les journées où le débit des sédiments en suspension n'est pas mesuré;

(c) Un nombre restreint de mesures du débit des sédiments en suspension avec intégration en un point précis d'un cours d'eau, afin de vérifier les résultats des mesures avec intégration selon la profondeur et afin de déterminer la granulométrie des particules de sédiments dans une section transversale d'un cours d'eau;

(d) L'échantillonnage des matériaux du lit afin d'en déterminer la granulométrie;

(e) La mesure périodique du charriage.

Voici une brève description des éléments susmentionnés.

(a) *Mesure du débit des sédiments en suspension par intégration selon la profondeur*: La méthode permet de déterminer le débit des sédiments en suspension traversant toute une section transversale d'un cours d'eau, la concentration moyenne des sédiments en suspension dans la section transversale et la granulométrie des sédiments en suspension. C'est un fait connu que la concentration des sédiments en suspension augmente généralement avec la profondeur et qu'elle peut varier d'une rive à l'autre d'un cours d'eau.

Avec la méthode d'incréments de débits égaux (IDE), la mesure du débit des sédiments en suspension se fait en divisant une section transversale d'un cours d'eau en au moins cinq tranches où le débit est égal et en prélevant un échantillon représentatif dans chacune d'elles. Le débit des sédiments en suspension (r) pour chaque tranche se calcule en multipliant le débit (q) par la concentration des sédiments en suspension (c):

$$r = q\ c$$

Le débit des sédiments en suspension (R) pour la section transversale est la somme des débits des sédiments des cinq tranches:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

La méthode par intégration sur toute la profondeur est employée pour mesurer la concentration des sédiments en suspension. Elle suppose que l'échantillonneur se remplit à un rythme proportionnel au débit de l'eau et qu'en étant déplacé à une vitesse uniforme sur toute la verticale, il reçoit une partie du mélange eau-sédiments à tous les points de celle-ci.

(b) *Prélèvement d'échantillons uniques de sédiments en suspension sur une verticale choisie*: De tels échantillons, constitués chacun de deux bouteilles, sont prélevés régulièrement à l'aide d'appareils intégrateurs, selon la profondeur ou ponctuels, sur une verticale permanente d'une section transversale. Lorsque la concentration des sédiments est très forte, deux ou trois échantillonnages peuvent être effectués chaque jour, alors qu'un seul échantillon peut être prélevé à quelques jours d'intervalle lorsqu'elle est faible. Au cours des périodes où le débit est extrêmement faible, l'échantillonnage peut être limité à un échantillon toutes les quelques semaine ou tous les quelques mois.

(c) *Mesure du débit des sédiments en suspension par la méthode ponctuelle*: Un nombre limité de mesures du débit des sédiments en suspension sont faites avec cette méthode. On y a recours a) pour vérifier les valeurs du débit mesurées au moyen de la méthode précédente et b) pour obtenir des échantillons en vue de déterminer la granulométrie des sédiments en divers points de la

at different points in the cross section. The point-integrating sediment loads are computed by graphical methods.

The relationship between the suspended sediment concentration of the single vertical samples and the average concentration in the cross section determined from the suspended sediment load measurements is established for some stations. Using this relationship, the sediment concentrations of the single vertical samples are adjusted to reflect the average suspended sediment concentration in the cross section. These average sediment concentrations in the cross sections are plotted, and a smooth curve is drawn through the points to obtain a concentration graph. This graph represents the average suspended sediment concentration for the period of record. The daily mean concentrations are determined by automated procedures using a digitizer interfaced with a Digital minicomputer.

The daily suspended sediment loads are computed on the basis of stream discharges and the collected suspended sediment concentrations. The daily suspended sediment loads are expressed in tonnes per day and are obtained by multiplying the daily mean sediment concentration (mg/L), by the daily mean discharge (m^3/s), and the conversion factor, 0.0864.

(d) *Bed Material Sampling*: In a cross section, bed material samples are usually taken in the same sampling verticals as the suspended sediment samples. Often, additional bed material samples are collected at the water edge, the extreme water level or at other points in the cross section. The total number of bed material samples taken in a cross section usually varies between five and nine.

(e) *Bed Load Measurement*: There are several methods available for measurement of bed load (volumetric method, measurement by samplers, method of tracers, method of constricted cross section, study of sound waves, etc.). The measurement methods should be selected in accordance with river regime.

4. *Total Sediment Load*

Sediment transport may be divided into two categories: sediment maintained in suspension in the stream (suspended load), and sediment being carried along the streambed (bed load). To measure the total sediment load, each of these must be measured separately and then totalled. The total sediment load was not computed for this publication.

5. *Sediment Survey Laboratories*

The Water Resources Branch maintain sediment survey laboratories in New Westminster, British Columbia; Regina, Saskatchewan; Guelph, Ontario; and Moncton, New Brunswick. The laboratories are equipped to perform the following analyses:

(a) determination of sediment concentration by (1) filtration method, (2) evaporation method and (3) determination of total dissolved solids by evaporation method.
(b) particle-size distribution analysis by (1) bottom withdrawal tube method, (2) sieving and (3) hydrometer method.

Determination of the sediment concentration by the evaporation method is carried out by evaporating the water from the settled sediment sample, with the results being corrected for dissolved solids. The quantity of dissolved solids is determined by evaporating a portion of the decanted water of a sample. In the filtration method, the suspended sediment concentration of water samples is determined by utilizing Gooch crucibles with a Reeve Angel 934AH filter and a Millipore AP20 prefilter and a vacuum system.

section transversale. Cette méthode fait appel à des graphiques pour le calcul du débit des sédiments.

Le rapport entre la concentration des sédiments en suspension dans les échantillons prélevés sur une seule verticale et la concentration moyenne dans la section transversale, telle que déterminée à partir des mesures du débit des sédiments en suspension, est établi pour quelques stations. Il permet de corriger les concentrations mesurées à une seule verticale de manière à donner la concentration moyenne dans la section transversale. Les concentrations moyennes ainsi déterminées sont reportées sur un graphique, et une courbe lisse passant par les points marqués est tracée. Le graphique obtenu représente la concentration moyenne des sédiments en suspension pour la période de relevé. Les concentrations moyennes quotidiennes sont déterminées automatiquement à l'aide d'un convertisseur analogique-numérique relié à un mini-ordinateur numérique.

Les valeurs journalières du débit des sédiments en suspension sont calculées à partir du débit du cours d'eau et des concentrations des sédiments en suspension recueillis. Elles sont exprimées en tonnes par jour. On les détermine en multipliant la concentration moyenne journalière des sédiments (mg/L) par le débit moyen journalier (m^3/s) et par un facteur de conversion approprié, 0.0864.

(d) *Échantillonnage des matériaux du lit*: Dans une section transversale, les échantillons des matériaux du lit sont ordinairement prélevés aux mêmes verticales que ceux des sédiments en suspension. Souvent, des échantillons supplémentaires sont pris près des rives, là où le niveau d'eau est extrême et à d'autres points de la section transversale. Leur nombre total pour une section donnée varie ordinairement entre cinq et neuf.

(e) *Mesure du charriage*: La mesure peut se faire par plusieurs méthodes (méthode volumétrique, mesure à l'aide d'échantillonneurs, méthode des traceurs, méthode de la section transversale rétrécie, étude des ondes sonores, etc.). Le choix se fondera sur la nature du régime du cours d'eau.

4. *Débit solide total*

Il y a deux catégories de sédiments: les sédiments maintenus en suspension au sein de l'eau (sédiments en suspension), et les sédiments charriés sur le lit d'un cours d'eau (charriage de fond). Les deux types de sédiments doivent être mesurés séparément et leurs valeurs additionnées si on veut mesurer le débit total des sédiments. Toutefois, on ne l'a pas calculé aux fins de la présente publication.

5. *Laboratoires d'analyse*

La Direction des ressources en eau possède des laboratoires d'analyse des sédiments à New Westminster (Colombie-Britannique), Regina (Saskatchewan), Guelph (Ontario) et Moncton (Nouveau-Brunswick). Les laboratoires disposent des appareils nécessaires pour effectuer les analyses suivantes:

(a) la détermination de la concentration des sédiments par (1) filtration, (2) évaporation, et (3) détermination des matières dissoutes totales par évaporation.
(b) l'analyse granulométrique (1) par extraction des sédiments déposés dans un tube, (2) par l'emploi de tamis et (3) par l'utilisation d'un hydromètre.

La méthode par évaporation consiste à faire évaporer l'eau d'un échantillon de sédiments décanté et à corriger les résultats pour tenir compte des matières dissoutes. La quantité de celles-ci est déterminée en faisant évaporer une partie de l'eau de l'échantillon décanté. Dans la méthode par filtration, on utilise sous vide des creusets de Gooch munis d'un filtre Reeve Angel 934AH et d'un préfiltre Millipore AP20.

Particle-size analysis was carried out for some suspended sediment samples having gross weights in the range of 0.15 to 5 g using the Bottom Withdrawal Tube method. The particle-size distribution of the Bottom Withdrawal Tube method ranges from 0.002 to 1.000 mm. The Sieve analysis method may be used for samples with a large amount of material coarser than 0.062 mm.

The particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)
Clay	0.000 24 - 0.004
Silt	0.004 - 0.062
Sand	0.062 - 2.0
Gravel	2.0 - 64.0

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analyzed in distilled water. Chemical dispersion is not used for native-water analysis.

6. *Accuracy and Reliability of Field Data and Computed Results*

The overall accuracy and degree of reliability of the sediment data is dependent upon many factors. Some of the more important of these are:

(a) accuracy and reliability of streamflow records;
(b) regime of the river;
(c) type of sampling equipment used to collect the suspended sediment samples;
(d) frequency of suspended sediment discharge measurements;
(e) frequency of individual sampling;
(f) quality of the relationship between the average suspended sediment concentration in the cross section and the concentration of the individual samples;
(g) frequency and method of bed material sampling;
(h) frequency and method of bed load measurements;
(i) accuracy and reliability of the laboratory analysis;
(j) selected methods of computation of the suspended sediment discharge;
(k) interpretation and extrapolation of sediment records.

An assessment of the quality of the records can be made by an examination of the occurrence of the symbols A, B, E on the daily mean discharge and the S on the daily mean concentration.

In general, data collected during open-water periods are more reliable than those collected during periods of ice conditions or those records obtained by estimation. Further, water level data collected utilizing a water-stage recorder are more reliable and accurate than those using a manual gauge only, especially for small or flashy streams.

Une analyse granulométrique a été effectuée pour certains échantillons de sédiments en suspension ayant un poids brut dans l'intervalle de 0.15 à 5 g par la méthode de la burette (extraction des sédiments déposés, à divers intervalles). La distribution de la taille des particules déterminée par cette méthode varie de 0.002 à 1.000 mm. La méthode de tamisage peut être employée pour les échantillons ayant une forte quantité de particules de taille supérieure à 0.062 mm.

La classification granulométrique qui est utilisée dans la présente publication est conforme aux recommandations faites par l'*American Geophysical Union Subcommittee on Sediment Terminology*. La classification est la suivante:

Classification	Taille (mm)
Argile	0.000 24 - 0.004
Limon	0.004 - 0.062
Sable	0.062 - 2.0
Gravier	2.0 - 64.0

La répartition granulométrique qui est fournie dans cette publication, n'est pas obligatoirement représentative de toutes les particules qui sont transportées par un cours d'eau donné. La plupart des matières organiques sont extraites de l'échantillon qui est ensuite soumis à une dispersion mécanique et chimique avant d'être analysé dans de l'eau distillée. La dispersion chimique ne sert pas à l'analyse de l'eau naturelle.

6. *Exactitude des données et des résultats*

L'exactitude des données sur les sédiments dépend de nombreux facteurs. On peut citer, parmi les plus importants:

(a) l'exactitude des données sur les débits;
(b) le régime d'un cours d'eau;
(c) le type d'appareil d'échantillonnage utilisé pour prélever les échantillons de sédiments en suspension;
(d) la fréquence des mesures du débit des sédiments en suspension;
(e) la fréquence des échantillonnages isolés;
(f) la qualité du rapport entre la concentration moyenne des sédiments en suspension dans une section transversale et la concentration des échantillons isolés;
(g) la fréquence des échantillonnages des matériaux de fond et la méthode utilisée;
(h) la fréquence des mesures du charriage de fond et la méthode utilisée;
(i) l'exactitude des analyses de laboratoire;
(j) les méthodes de calcul du débit des sédiments en suspension;
(k) l'interprétation et l'extrapolation des données sur les sédiments.

La qualité des données peut être évaluée d'après la fréquence d'utilisation des symboles A, B, E, avec les données sur le débit journalier moyen, et S, avec celles sur la concentration journalière moyenne.

En général, les données recueillies au cours des périodes d'eau libre sont plus sûres que celles qui sont obtenues au cours des périodes de glaces ou par estimation. De plus, les données sur le niveau des eaux qui sont mesurées à l'aide d'un limnigraphe sont plus certaines et plus exactes que celles qui sont mesurées à l'aide d'une jauge manuelle seulement, surtout dans le cas des petits cours d'eau ou des cours d'eau à crues très rapides.

METHOD OF TABULATION OF SEDIMENT DATA

For stations where the suspended sediment load was obtained, the following data are given where available:

1. The table of *Suspended Sediment Load* includes the daily mean discharge in cubic metres per second, the daily mean concentration in milligrams per litre, and the daily suspended sediment load in tonnes per day. The total monthly discharge and total monthly sediment load is also given for complete months of record.

   For stations where the sediment load in tonnes per day are produced for complete or partial years, the *Total Suspended Load* for the period is given in the descriptive information.

   For stations where only suspended sediment concentrations are obtained, the table of *Suspended Sediment Load* will not be given.

   Additional descriptive information about the sediment station is also given above the table of *Suspended Sediment Load* and will indicate the following, where applicable.

   Location – the latitude and longitude co-ordinates of the location of the gauge are given. For stations where the gauge is located an appreciable distance from the discharge measurement section, these co-ordinates give the location of the discharge measurement section.

   Drainage area – refers to that area enclosed by a topographic divide such that direct surface runoff from precipitation would drain by gravity into the stream upstream from the location of the station.

   Natural Flow or *Regulated Flow* – where the flow is known to be natural, this is indicated. The flow of water in many river systems is affected by upstream regulation. In some cases, the extent of this regulation is not known and therefore is not indicated. However, where the regulation is known to be "appreciable", this is indicated as well as the year that the regulation began, if known.

   Type of Gauge – refers to the installation or method used to obtain water level or discharge data:

   (a) Manual – a non-recording type of gauge from which observations of stage normally are obtained once daily.

   (b) Recording – a water-stage recorder from which continuous water levels are obtained on an analog chart. For most International Gauging Stations located in the United States, water level records are obtained utilizing a digital recorder.

   International Gauging Stations – on waters adjacent to the international boundary, certain gauging stations have been

PRÉSENTATION DES TABLEAUX DE DONNÉES SUR LES SÉDIMENTS

Pour les stations de mesure du débit des sédiments en suspension, les données suivantes sont présentées, pour autant qu'elles sont disponibles:

1. Le tableau concernant le *débit des sédiments en suspension* (The table of Suspended Sediment Load) donne le débit journalier moyen de l'eau, en mètres cubes par seconde, la concentration journalière moyenne, en milligrammes par litre, et le débit journalier des sédiments en suspension, en tonnes par jour. Les mois où les données sont complètes, sont également indiqués les débits mensuels totaux de l'eau et des sédiments.

   Dans le cas des stations où le débit des sédiments, en tonnes par jour, est fourni pour une année complète ou une partie de l'année, le total pour la période est indiqué.

   Dans le cas des stations où seule la concentration des sédiments en suspension est obtenue, ce tableau est absent.

   Des renseignements descriptifs additionnels au sujet de la station sont également présentées au-dessus du tableau. On peut y apporter les précisions suivantes:

   Emplacement (Location) – La latitude et la longitude de la station de jaugeage sont indiquées. Dans les cas où l'équipement de mesure est situé à une bonne distance de la section où le jaugeage est effectué, on indique les coordonnées de cette section.

   Superficie du bassin versant (Drainage area) – Désigne la zone délimitée par une ligne de faîte de sorte que l'écoulement de surface direct provenant des précipitations est entraîné par gravité vers le cours d'eau, en amont de la station.

   Débit naturel ou *régularisé* (Natural Flow ou Regulated Flow) – Un débit reconnu comme naturel est indiqué. Le débit de nombreux réseaux hydrographiques est modifié par une régularisation effectuée en amont. Dans certains cas, l'importance de cette régularisation n'est pas connue, et elle n'est donc pas indiquée. Cependant, quand on sait que la régularisation est d'une certaine importance, on l'indique, ainsi que l'année où elle a débuté (si elle est connue).

   Type de jauge (Type of Gauge) – Il s'agit des jauges ou des méthodes de jaugeage utilisées pour obtenir les données sur le niveau ou le débit d'un cours d'eau.

   (a) *Manuelle* (Manual) – Indique qu'un appareil non enregistreur est employé pour obtenir normalement une fois par jour les données sur le niveau et le débit du cours d'eau.
   (b) *Enregistreuse* (Recording) – Indique qu'un limnigraphe permet de mesurer de façon continue le niveau des eaux qui est tracé sur un graphique. La plupart des stations internationales de jaugeage des États-Unis obtiennent les données sur le niveau des eaux à l'aide d'un enregistreur numérique.

   Stations internationales de jaugeage (International Gauging Stations) – Dans les eaux contiguës aux frontières, on a

designated as "International" and records are approved jointly. Differences between figures published herein and corresponding figures in United States Water Supply Papers are due to variations in automated data processing techniques.

Contributed Data – if data were supplied in their entirety or partially by an outside agency, the name of this co-operating agency is given.

Remarks – contains a statement pertaining to the sediment sample collection.

2. The table of *Instantaneous Suspended Sediment Concentration* for depth-integrating samples gives the particle-size distributions, in Percent Finer, in millimetres for each sample collected, if available. The Date and Time of the sample collection; Water Temperature; Instantaneous Discharge, if not available the daily mean discharge should be given and indicated by a symbol; Single Sampling Vertical location; Dissolved Solids; Percent Sand, Silt and Clay; Type of Sampler used is also given where available.

   For the suspended sediment measurements, the date, time, water temperature at time of sampling, computed discharge for each sampling panel, concentration and the sampling vertical, coded with the symbol (M) to indicate a sampling vertical of a suspended sediment measurement are given.

3. The table of *Point Integrating Particle-size of Suspended Sediment* gives the particle-size distribution, in Percent Finer, in millimetres, for each sample collected in the measurement. The Date and Time of the sample collection; Instantaneous Discharge for each sampling vertical; Water Temperature; Sampling Vertical; Sample Depth; Concentration in milligrams per litre; Dissolved Solids, in milligrams per litre, and the Percent Sand, Silt and Clay are also given. The Type of Sampler used in the collection of the samples is indicated at the bottom of the table.

4. The table of *Bed Load Particle-size* gives the particle-size distribution, in Percent Finer, in millimetres, for each sample of bed load collected. The Date and Time of the sample collection; Instantaneous Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample are also given.

5. The table of *Bed Material Particle-size* gives the particle-size distribution, in Percent Finer, in millimetres, for each sample of bed material collected. The Date and Time of the sample collection; Instantaneous Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample are also given.

désigné certaines stations comme «internationales», et les données obtenues sont approuvées par les pays concernés. Les différences entre les chiffres publiés dans la présente publications et dans les *United States Water Supply Papers* sont dues à des variantes dans les techniques de traitement automatique des données.

Données fournies (Contributed Data) – Lorsqu'un organisme extérieur a fourni toutes les données ou une partie des données, son nom est indiqué.

Remarques (Remarks) – Renseignements au sujet du prélèvement des échantillons de sédiments.

2. Le tableau des *concentrations instantanées de sédiments en suspension* (The table of Instantaneous Suspended Sediment Concentration) pour les échantillons obtenus par intégration selon la profondeur donne la granulométrie des sédiments, en pourcentage des particules de taille inférieure à une taille donnée, en millimètres, pour chaque échantillon recueilli, si elle est connue. Sont également indiqués la date et l'heure de prélèvement; la température de l'eau; son débit instantané (s'il n'est pas connu, le débit journalier moyen, avec symbole); l'emplacement de la verticale d'échantillonnage; la concentration des matières dissoutes; les pourcentages de sable, de limon et d'argile; le type d'échantillonneur employé, si connu.

   Pour les mesures des sédiments en suspension, la date, l'heure, la température de l'eau au moment de l'échantillonnage, le débit calculé pour chaque tranche de la section d'échantillonnage, la concentration et la verticale d'échantillonnage, avec le code M pour indiquer une verticale d'échantillonnage d'une mesure des sédiments en suspension, sont donnés.

3. Le tableau de la *granulométrie des échantillons ponctuels et intégrés des sédiments en suspension* (The table of Point Integrating Particle-size of Suspended Sediment) donne les pourcentages de particules de taille inférieure aux tailles indiquées, en millimètres, pour chaque échantillon prélevé pour la mesure. Sont également indiqués la date et l'heure de prélèvement de l'échantillon, le débit instantané pour chaque verticale d'échantillonnage, la température de l'eau, la verticale d'échantillonnage, la profondeur de l'échantillon, la concentration des sédiments, en milligrammes par litre, la concentration des matières dissoutes, en milligrammes par litre, et les pourcentages de sable, de limon et d'argile. Le type d'échantillonneur employé est indiqué au bas du tableau.

4. Le tableau de la *granulométrie des sédiments charriés* (The table of Bed Load Particle-size) donne le pourcentage des particules de taille inférieure aux tailles indiquées, en millimètres, pour chaque échantillon recueilli du charriage. Sont également indiqués la date et l'heure de prélèvement de l'échantillon, le débit instantané, la verticale d'échantillonnage et le type d'échantillonneur employé.

5. Le tableau de la *granulométrie des matériaux du lit* (The table of Bed Material Particle-size) donne le pourcentage des particules de taille inférieure aux tailles indiquées, en millimètres, pour chaque échantillon recueilli. Sont également indiqués la date et l'heure de prélèvement de l'échantillon, le débit instantané, la verticale d'échantillonnage et le type d'échantillonneur employé.

6. The table of *Historical Sediment Data Summary* gives the following, for the period of record, where applicable.

   (a) Period of Record
   (b) Type of Operation
   (c) Sampled Concentration
   (d) Suspended Sediment Load
   (e) Summary.

(a) The *Period of Record* gives the first and last month of record for the year, i.e. (APR-DEC) for April to December. If the *Period of Record* is incomplete this is indicated by an octothorpe (#).
(b) The *Type of Operation* shows *method of sampling* and the *operation schedule*, which are presented as two symbols i.e. M-S.

The first symbol is the *method of sampling* and could be one of the symbols (A), (B) or (M). The symbol (A) indicates that the method of sample collection was by an automatic sampler; (M) represents manual sampling. If samples during the year or season were collected by both automatic sampling and manual methods, this would be indicated by the symbol (B) for both.

The second symbol is the *operation schedule* which is represented by one of the symbols (C), (MS) or (S). The symbol (C) indicates that sediment loads are continuous for the entire year. The symbol (S) indicates that records are available only for partial year or seasonal. If records are available only for individual days of a year, this is indicated by the symbol (MS) for miscellaneous.

(c) The *Sampled Concentration* gives the maximum and minimum concentration, in milligrams per litre, and the date of collection for each year of record. The extreme recorded for the period of record is indicated by an asterisk (*).

(d) The *Suspended Sediment Load* gives the maximum daily load, in tonnes, and the date of occurrence. The extreme recorded is indicated by an asterisk (*). The Total for the Period gives the total load for the period or year, in tonnes. The extreme recorded is also indicated by an asterisk (*). A load which has been revised since the previous publication is marked with the symbol (R) for Revision.
(e) The *Summary* gives the *Mean Load* and the *Historical Mean Load* in tonnes.

The *Standard Error of the Mean %* is calculated using the following equation.

$$\frac{\sigma}{\bar{x} \times \sqrt{n}} \times 100\%$$

For stations with only instantaneous samples, this table will not include the *Suspended Sediment Load* or the statistical information in the *Summary*.

6. Le tableau du *sommaire chronologique des données sur les sédiments* (The table of Historical Sediment Data Summary) donne, pour la période pour laquelle les données sont disponibles, les renseignements suivants lorsque de telles données existent:

   (a) La période de relevé
   (b) Le type d'exploitation
   (c) Les concentrations mesurées
   (d) Le débit des sédiments en suspension
   (e) Le résumé.

(a) La *période de relevé* (Period of Record) donne le premier et le dernier mois des données au cours de l'année; ex.: (APR-DEC) pour avril à décembre. Le symbole # indique la *période de relevé* est incomplète.
(b) Sous le *type d'exploitation* (Type of Operation) on donne la *méthode d'échantillonnage* et le *calendrier d'exploitation*, qui sont présentés sous forme de deux symboles; ex.: M-S.

Le premier symbole correspond à la *méthode d'échantillonnage*; ce peut être un A, un B ou un M. Un A indique que l'échantillonnage a été fait au moyen d'un appareil automatique; un M, qu'il était manuel; et un B, que durant l'année ou la saison des méthodes manuelles et automatiques ont été employées.

Le deuxième symbole code pour le *calendrier d'exploitation*; ce peut être un C, un MS ou un S. Un C indique que les mesures du débit des sédiments se font pendant toute l'année; un S, que les données ne sont disponibles que pour une partie de l'année ou sont saisonnières; un MS, que les données ne sont disponibles que pour certains jours de l'année.

(c) Pour les *concentrations mesurées* (Sampled Concentration), on donne la concentration maximale et la concentration minimale, en milligrammes par litre, et leur date d'obtention pour chaque année de relevé. La valeur extrême enregistrée est indiquée par un astérisque (*).
(d) Sous le *débit des sédiments en suspension* (Suspended Sediment Load), on donne le débit journalier maximal, en tonnes, et sa date de mesure. Le débit extrême enregistré est indiqué par un astérisque (*). Le débit total pour la période ou pour l'année est indiqué. La valeur extrême est également signalée par un astérisque (*). La lettre R indique qu'une valeur du débit a été révisée depuis la dernière publication.
(e) Le *résumé* donne le *débit moyen* et le *débit moyen chronologique*, en tonnes.

L'*erreur-type de la moyenne* (Standard Error of the Mean), en pourcentage, est calculée à l'aide de l'équation suivante:

$$\frac{\sigma}{\bar{x} \times \sqrt{n}} \times 100\%$$

Dans le cas des stations ne prélevant que des échantillons instantanés, ce tableau ne donnera pas le *débit des sédiments en suspension* ni les données statistiques du *résumé*.

DEFINITION OF TERMS

The following definitions are given to clarify the terms used in this publication:

Automatic pump sample is an individual water-sediment mixture pumped from a fixed point in a stream.

Bed load is that material moving in almost continuous contact with the streambed, being rolled or pushed along the bottom by the force of the water.

Bed material is the sediment mixture of which the streambed is composed.

Daily load is the suspended sediment load expressed in tonnes for a particular day. The daily load is obtained by multiplying the daily mean sediment concentration (mg/L) by the daily mean discharge (m^3/s) and the conversion factor, 0.0864.

Daily mean concentration is a time-weighted mean value and is computed from a manually constructed concentration curve. The mean concentration value may be determined arithmetically or graphically. The arithmetic mean is obtained either by (1) selecting values from the concentration graph that represents uniform intervals of time and taking the arithmetic average or by (2) selecting values from the graph that represent unequal intervals of time and weighing these values by the time intervals represented by the concentrations. For graphical explanation refer to *Office Procedures for Sediment Data Computations* and for the automated graphical explanation refer to *Automated Hydrometric Computation Procedures*.

Depth-integrated sediment sample is a suspended sediment sample collected at a single vertical in a cross section in a sampler moving vertically at a constant transit rate and represents an average sample for that part of the depth ranging from the water surface to about nine centimetres above the streambed.

Instantaneous suspended sediment sample is a sample collected at a fixed vertical in a river cross section.

Measured suspended sediment discharge is the suspended sediment discharge that can be computed from stream discharge and the concentration of sediment determined from depth-integrated sediment samples.

Particle-size analysis is the process of determining the size distribution of particles in a sediment sample.

Point-integrated sediment sample is a sample of the water-sediment mixture taken over a specified period of time at a fixed point and depth in a river cross section.

DÉFINITION DES TERMES

Les définitions suivantes sont présentées afin de faciliter la compréhension des termes utilisés dans la présente publication:

Échantillonnage automatique à l'aide d'une pompe (Automatic pump sample): Prélèvement d'un mélange de sédiments et d'eau au moyen d'une pompe fonctionnant automatiquement, en un point précis d'un cours d'eau.

Charriage (Bed load): Matières roulées ou poussées sur le fond sous l'action de l'eau, mais restant en contact presque permanent avec le fond.

Matériau du lit (Bed material): Mélange de sédiments composant le lit d'un cours d'eau.

Débit journalier des sédiments en suspension (Daily load): Débit des sédiments en suspension exprimé en tonnes par jour, pour une journée donnée. On l'obtient en multipliant la concentration journalière moyenne des sédiments (mg/L) par le débit journalier moyen de l'eau (m^3/s) et le facteur de conversion 0.0864.

Concentration journalière moyenne (Daily mean concentration): Moyenne pondérée en fonction du temps, calculée à partir d'une courbe de la concentration établie manuellement. La valeur de la concentration moyenne peut être déterminée arithmétiquement ou graphiquement. Pour la déterminer arithmétiquement, on peut, soit choisir sur la courbe des valeurs représentant des intervalles uniformes de temps et faire la moyenne arithmétique, soit choisir sur cette courbe des valeurs qui représentent des intervalles inégaux de temps et pondérer ces valeurs en fonction des intervalles de temps correspondants. En ce qui concerne les méthodes graphiques, consulter *Méthodes de bureau pour les calculs de données sur les sédiments* et, pour la méthode automatisée, *Automated Hydrometric Computation Procedures*.

Échantillon intégré sur toute la profondeur (Depth integrated sediment sample): Échantillon des sédiments en suspension prélevé sur une verticale précise d'une section transversale d'un cours d'eau à l'aide d'un échantillonneur se déplaçant verticalement à une vitesse constante; il représente un échantillon moyen des matières en suspension entre la surface de l'eau et environ 9 cm du fond.

Échantillon instantané de sédiments en suspension (Instantaneous suspended sediment sample): Échantillon prélevé à une verticale précise d'une section transversale d'un cours d'eau.

Débit mesuré des sédiments en suspension (Measured suspended sediment discharge): Débit des sédiments en suspension qui peut être calculé à partir du débit du cours d'eau et de la concentration des sédiments déterminée à partir d'échantillons intégrés sur toute la profondeur.

Analyse granulométrique (Particle-size analysis): Détermination de la répartition de la taille des particules dans un échantillon de sédiments.

Échantillon ponctuel et intégré (Point-integrated sediment sample): Échantillon constitué d'un mélange d'eau et de sédiments, prélevé au cours d'une période de temps donnée en un point précis d'une section transversale d'un cours d'eau et à une profondeur donnée.

Sediment is fragmental material which has deposited, eroded or transported by a flowing stream.

Sediment hydrograph is a graph showing the variation of suspended sediment concentration or sediment discharge with respect to time.

Single sample is a sample taken at a selected permanent vertical in a cross section. Two bottles of water-sediment mixture make up each single sample.

Single sampling vertical is a selected permanent vertical in a cross section in which single suspended sediment samples are collected.

Suspended sediment is sediment that moves in suspension in water either as a colloid or through the influence of the upward component of turbulent currents.

Suspended sediment concentration is the ratio of the weight of dry solids in a water-sediment mixture to the volume of the mixture. The units of this ratio are "milligrams per litre" (mg/L).

Suspended sediment load is the quantity of suspended sediment transported through a cross section per unit of time.

Total sediment load is the sum of the suspended sediment load and the bed load.

Unmeasured sediment load is the difference between total sediment load and measured suspended sediment load.

Sédiments (Sediment): Matières fragmentaires qui ont été déposées, érodées ou transportées par un cours d'eau.

Hydrogramme des sédiments (Sediment hydrograph): Graphique représentant la variation de la concentration des sédiments en suspension ou du débit des sédiments en fonction du temps.

Échantillon unique (Single sample): Échantillon prélevé sur une verticale permanente particulière dans une section transversale. Deux bouteilles du mélange eau-sédiments constituent un seul échantillon.

Verticale d'échantillonnage unique (Single sampling vertical): Verticale permanente d'une section transversale où des échantillons uniques de sédiments en suspension sont prélevés.

Sédiments en suspension (Suspended sediment): Matériaux qui se déplacent au sein de l'eau, soit sous forme colloïdale, soit sous l'influence des forces ascendantes des courants turbulents.

Concentration des sédiments en suspension (Suspended sediment concentration): Rapport entre le poids des matières solides sèches contenues dans un mélange eau-sédiments et le volume du mélange. Les unités employées sont les «milligrammes par litre» (mg/L).

Débit des sédiments en suspension (Suspended sediment load): Quantité de sédiments en suspension transportés par unité de temps à travers une section transversale d'un cours d'eau.

Débit total des sédiments (Total sediment load): Somme du débit des sédiments en suspension et du débit charrié.

Débit non mesuré des sédiments (Unmeasured sediment load): Différence entre le débit total des sédiments et le débit mesuré des sédiments en suspension.

DEFINITION OF SYMBOLS

A – Manual Gauge – indicates that one or more manual gauge observations per day were obtained and used as the mean for the day for a gauging station equipped with a recording gauge. This symbol is used during open-water periods only.

B – Ice Conditions – indicates the presence of ice at the gauging station. For gauging stations where discharge data are obtained, this symbol indicates that the presence of ice has affected the stage-discharge relationship.

E – Estimated – indicates estimated data. It indicates that the values between collected sediment samples of a peak period are estimated by some indirect method such as interpolation, extrapolation, from a graph of observed readings, comparison with other streams or by comparison with meteorological data.

H – Daily Mean Discharge – is the mean discharge for a particular day, usually referred to as the "daily discharge".

S – Sample(s) collected this day – indicates that a depth-integrated or point-integrated measurement, single vertical sample(s) or a sample collected by an automatic sampling device, was collected this day.

DÉFINITIONS DES SYMBOLES

A – Turbidisonde simple – Indique qu'on a effectué à une station de jaugeage dotée d'une turbidisonde enregistreuse au moins une observation par jour à l'aide d'une turbidisonde simple et qu'on s'en est servi comme moyenne pour la journée en question. Le symbole n'est employé qu'au cours des périodes d'eau libre.

B – Glaces – Indique la présence de glaces à la station de jaugeage, qui ont faussé la relation hauteur-débit.

E – Estimative – Indique des données estimatives, c'est-à-dire que les valeurs fournies entre les prélèvements d'échantillons d'une période de débit de pointe, sont évaluées de façon indirecte, par exemple par interpolation, extrapolation, à l'aide de graphique, ou par comparaison avec d'autres cours d'eau ou avec des données météorologiques.

H – Débit journalier moyen – Debit moyen pour une journée donnée, ordinairement appelé «débit journalier».

S – Échantillon(s) prélevé(s) en ce jour – Indique qu'on a prélevé ce jour-là un (ou des) échantillon(s), intégré(s) selon la profondeur ou ponctuel(s), sur une (ou des) verticale(s) d'échantillonnage, ou qu'on a prélevé un échantillon au moyen d'un dispositif d'échantillonnage automatique.

CO-OPERATION AND ACKNOWLEDGMENTS

Co-operative undertakings with other agencies form an important part of the activities of the Water Survey of Canada. Close co-operation has been maintained with public agencies and private organizations concerned with water resources. Data have been mutually exchanged and suspended sediment collection operations have been facilitated by the assistance received from a number of organizations.

On waters adjacent to the International Boundary, certain sediment stations are maintained by Canada (or the United States) under agreement with the United States (or Canada) and the records are collected and compiled in a manner equally acceptable to both countries. These stations are designated as "International Gauging Stations" in this publication.

For the valuable assistance and co-operation received in obtaining sediment survey records, the Water Survey of Canada is indebted to other federal and provincial organizations which are noted as contributing agencies in the summary for the year. A list of these agencies may be found in the *Sediment Data Reference Index*.

COOPÉRATION ET REMERCIEMENTS

Le travail entrepris en coopération avec d'autres organismes représente une partie importante des activités de la Division des relevés hydrologiques du Canada. On a maintenu une étroite collaboration avec les organismes, publics ou privés, qui s'intéressent aux ressources en eau. On a échangé des données sur les sédiments, et l'assistance fournie par certains organismes a facilité les opérations d'échantillonnage des sédiments en suspension.

Dans les eaux adjacentes à la frontière internationale, les stations dépendent du Canada ou des États-Unis selon l'accord intervenu entre les deux pays, et les relevés sont faits et compilés de façon à satisfaire les deux pays. Ces stations sont nommées «Stations internationales de jaugeage» dans la présente publication.

La Division des relevés hydrologiques du Canada est redevable à plusieurs organismes fédéraux et provinciaux, dont les noms apparaissent dans le sommaire de l'année, de l'aide et de la collaboration qu'ils lui ont apportées pour l'obtention des données sur les sédiments. On trouvera également les noms des organismes qui ont fourni des données dans l'*Index de référence des données sur les sédiments*.

REVISIONS

A number of corrections or revisions have been made to previously published data. Many of these were required because of typographical or computational errors which were exposed when the data were stored on magnetic tape and monthly means were re-calculated by computer. Other errors were discovered or different interpretations of basic data were made during the systematic review of historical streamflow data presently underway.

Revisions to daily discharges or sediment data are not published at present. However, those stations where a systematic review has been conducted are identified in the Surface Water Data Reference Index publication. The Historical Streamflow Summary publications contain revisions to monthly and annual mean discharges, and annual extremes of discharge. Revisions, corrections or additions made to discharges and sediment after January 1, 1980, are indicated by an "R" symbol in the data summaries. Detailed information on revisions to historical data is available from the appropriate Regional Chief.

RÉVISIONS

On a corrigé ou révisé des données déjà publiées. Il a été nécessaire d'effectuer plusieurs corrections, car on a relevé des erreurs typographiques ou de calcul lorsqu'on a enregistré les données sur rubans magnétiques et qu'on a recalculé les moyennes mensuelles à l'aide d'un ordinateur. On a aussi relevé d'autres erreurs ou fait des interprétations différentes de certaines données de base au cours de la révision systématique des données historiques sur le débit, actuellement en cours.

Les corrections apportées aux débits journaliers ou aux données sur les sédiments ne sont pas publiées, du moins pour le moment. Cependant, les stations où on a effectué une révision systématique sont indiquées dans l'*Index de référence des données sur les eaux de surface*. Les publications intitulées *Sommaire chronologique de l'écoulement* contiennent des données révisées sur les débits mensuels et annuels moyens et les extrêmes annuels du débit. Les révisions, corrections ou ajouts apportés aux données sur les débits et sur les sédiments après le 1er janvier 1980 sont indiqués par la lettre R dans les résumés des données. On peut obtenir plus de détails sur les révisions en s'adressant au chef régional concerné.

MICROFICHE

All sediment data are available in metric units on microfiche, upon request. The data are stored in station number order by province. There are 270 frames per microfiche at 48X reduction; there is a visible heading showing the fiche number, type of data, province, beginning and ending station number and year of data, and the month/year the fiche was created. The last frame is an index of the contents of that fiche.

MICROFICHE

Toutes les données sur les sédiments sont disponibles sur microfiche en unités métriques. Ces données sont emmagasinées par ordre de numéro de station et par province. Chaque microfiche renferme 270 pages réduites de 48X. L'en-tête indique le numéro de la fiche, le genre de données, la province, le numéro de la première et de la dernière station, la première et la dernière année des données ainsi que le mois et l'année de création de la fiche. La dernière image donne l'index de la fiche.

EQUIVALENTS OF MEASURE

The following list of convenient equivalents of measure includes the relationship between imperial units and the International System of Units (SI).

1 inch equals 2.54 cm (centimetres)
1 foot equals 0.3048 m (metre)
1 statute mile equals 1.6093 km (kilometres)

1 cm (centimetre) equals 0.393 70 inch
1 m (metre) equals 3.2808 feet
1 km (kilometre) equals 0.621 37 mile

1 acre equals 43 560 square feet
1 acre equals 0.404 69 ha (hectare)
1 square mile equals 640 acres
1 square mile equals 2.5900 km^2 (square kilometres)
1 square mile equals 259.0 ha (hectares)

1 ha (hectare) equals 10 000 m^2 (square metres)
1 ha (hectare) equals 2.4710 acres
1 km^2 (square kilometre) equals 0.386 10 square mile

1 cubic foot equals 6.2288 imperial gallons
1 imperial gallon equals 4.546 09 L (litres)
1 imperial gallon equals 1.2010 U.S. gallons
1 U.S. gallon equals 0.133 68 cubic foot
1 cubic foot equals 0.028 317 m^3 (cubic metre)
1 m^3 (cubic metre) equals 35.315 cubic feet
1 dam^3 (cubic decametre) equals 1000 m^3 (cubic metres)
1 dam^3 (cubic decametre) equals 1 mm (millimetre) over 1 km^2 (square kilometre)

1 cubic foot per second for one day equals 1.9835 acre-feet
1 cubic foot per second for one day covers one square mile to a depth of 0.037 19 inch
1 acre-foot equals 1.2335 dam^3 (cubic decametres)
1 m^3/s (cubic metre per second) for one day equals 86.4 dam^3 (cubic decametre)
1 m^3/s (cubic metre per second) for one day covers one square kilometre to a depth of 0.0864 m (metre)

1 foot per second equals 0.6818 mile per hour
1 mile per hour equals 1.467 feet per second
1 m/s (metre per second) equals 3.6 km/h (kilometre per hour)
1 km/h (kilometre per hour) equals 0.2778 m/s (metre per second)

1 cubic foot per second equals 0.028 317 m^3/s (cubic metre per second)
1 m^3/s (cubic metre per second) equals 35.315 cubic feet per second

1 pound equals 0.453 59 kg (kilogram)
1 kg (kilogram) equals 2.2046 pounds

1 short ton (2000 pounds) equals 0.907 18 t (tonne)
1 t (tonne) equals 2204.6 pounds

degrees Celsius = 5/9 (degrees Fahrenheit - 32)
degrees Fahrenheit = 9/5 (degrees Celsius) + 32

ÉQUIVALENCES DES UNITÉS DE MESURE

Voici une liste des unités de mesure impériales et leurs équivalences dans le Système international d'unités (SI).

1 pouce vaut 2.54 cm (centimètres)
1 pied vaut 0.3048 m (mètre)
1 mille terrestre vaut 1.6093 km (kilomètre)

1 cm (centimètre) vaut 0.393 70 pouce
1 m (mètre) vaut 3.2808 pieds
1 km (kilomètre) vaut 0.621 37 mille

1 acre vaut 43 560 pieds carrés
1 acre vaut 0.404 69 ha (hectare)
1 mille carré vaut 640 acres
1 mille carré vaut 2.5900 km^2 (kilomètres carrés)
1 mille carré vaut 259.0 ha (hectares)

1 ha (hectare) vaut 10 000 m^2 (mètres carrés)
1 ha (hectare) vaut 2.4710 acres
1 km^2 (kilomètre carré) vaut 0.386 10 mille carré

1 pied cube vaut 6.2288 gallons impérials
1 gallon impérial vaut 4.546 09 L (litres)
1 gallon impérial vaut 1.2010 gallon américain
1 gallon américain vaut 0.133 68 pied cube
1 pied cube vaut 0.028 317 m^3 (mètre cube)
1 m^3 (mètre cube) vaut 35.315 pieds cubes
1 dam^3 (décamètre cube) vaut 1000 m^3 (mètres cubes)
1 dam^3 (décamètre cube) vaut 1 mm (millimètre) qui couvre 1 km^2 (kilomètre carré)

1 pied cube par seconde pendant un jour vaut 1.9835 acre-pied
1 pied cube par seconde pendant un jour couvre un volume d'un mille carré par 0.037 19 pouce
1 acre-pied vaut 1.2335 dam^3 (décamètre cube)
1 m^3/s (mètre cube par seconde) pour un jour vaut 86.4 dam^3 (décamètres cubes)
1 m^3/s (mètre cube par seconde) pour un jour couvre un kilomètre carré à une profondeur de 0.0864 m (mètre)

1 pied par seconde vaut 0.6818 mille par heure
1 mille par heure vaut 1.467 pied par seconde
1 m/s (mètre par seconde) vaut 3.6 km/h (kilomètres par heure)
1 km/h (kilomètre par heure) vaut 0.2778 m/s (mètre par seconde)

1 pied cube par seconde vaut 0.028 317 m^3/s (mètre cube par seconde)
1 m^3/s (mètre cube par seconde) vaut 35.315 pieds cubes par seconde

1 livre vaut 0.453 59 kg (kilogramme)
1 kg (kilogramme) vaut 2.2046 livres

1 tonne courte (2000 livres) vaut 0.907 18 t (tonne)
1 t (tonne) vaut 2204.6 livres

degrés Celsius = 5/9 (degrés Fahrenheit - 32)
degrés Fahrenheit = 9/5 (degrés Celsius) + 32

SASKATCHEWAN

ANTLER RIVER NEAR WAUCHOPE - STATION NO. 05NF010

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
MAR 27	15:50	1.5	0.002	W	7	MID											188				DIP

NOTE : SINGLE VERTICAL LOCATED AT MIDSTREAM

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS

ANTLER RIVER NEAR WAUCHOPE - STATION NO. 05NF010

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1984	MAR-MAR	M-MS	7	MAR 27 *	7	MAR 27 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

ASSINIBOINE RIVER AT KAMSACK - STATION NO. 05MD004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-OCT MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1969	APR-OCT	M-S	156	JUL 08	9	OCT 22	835	APR 17	5 770	---	---	---
1970	JAN-DEC	M-S	153	APR 15	8	OCT 06	488	APR 15	8 000	36.3	36.3	---
1971	JAN-OCT	M-S	336	APR 15 *	10	SEP 17	2 090	APR 15	17 700	72.3	54.3	33.1
1972	MAR-OCT	M-S	148	APR 19	10	MAY 07	1 610	APR 19	15 300	63.5	57.0	18.8
1973	MAR-OCT	M-S	43	APR 30	8	AUG 10	41.4	JUL 14	1 780	7.25	44.6	32.7
1974	MAR-OCT	M-S	188	JUL 12	4	JUN 03 *	1 230	APR 25	14 800	60.4	47.8	24.5
1975	MAR-OCT	M-S	152	APR 24	18	OCT 02	1 370	APR 24	23 900	97.5	56.0	22.5
1976	MAR-NOV	M-S	126	APR 15	11	SEP 28	2 140	APR 15 *	26 800 *	108	63.5	20.6
1977	MAR-OCT	M-S	130	APR 19	15	AUG 09	240	APR 19	2 880	11.7	57.1	22.9
1978	MAR-OCT	M-S	134	APR 23	8	APR 04	275	APR 24	4 440	18.1	52.6	23.3
1979	MAR-OCT	M-S	301	APR 25	5	OCT 31	1 710	APR 25	19 800	81.1	56.6	20.5

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

BATTLE RIVER AT BATTLEFORD - STATION NO. 05FF001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 10	20:00	6.0	25.4	327	40.0																	DH59
MAY 03	14:40	10.0	9.51	25	40.0													438				DH59
MAY 25	20:00	17.0	6.38	47	MID	X												692				DH59
JUL 03	21:00	22.0	6.03	47	MID	X												652				DH48
JUL 30	18:20	25.0	2.67	10	MID	X												806				DH48
SEP 05	18:00	14.0	0.852	18	MID	X												821				DH48
OCT 04	09:15	7.0	6.39	24	MID	X												648				DH48
																		739				DH48

NOTE : SINGLE VERTICAL LOCATED AT 40.0 METRES

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

SASKATCHEWAN

BATTLE RIVER AT BATTLEFORD - STATION NO. 05FF001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1979	APR-SEP #	M-S	1 030	APR 24	3	SEP 25	17 200 APR 25 *	70 800 *	---	---	---
1980	APR-NOV #	M-MS	1 420	APR 18 *	11	JUN 24	---	---	---	---	---
1981	APR-NOV #	M-MS	289	APR 15	0	JUL 21 *	---	---	---	---	---
1982	APR-NOV #	M-MS	723	MAY 11	42	NOV 01	---	---	---	---	---
1983	APR-OCT #	M-MS	611	APR 18	23	OCT 31	---	---	---	---	---
1984	APR-OCT	M-MS	327	APR 10	10	JUL 30	---	---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

BEAVER RIVER NEAR DORINTOSH - STATION NO. 05AD001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	INSTANT. CONCENT. (mg/L)	SINGLE VERTICAL SAMPLING (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 11	12:00	3.5	33.5	35	26.0												204				DH59
APR 18	15:40	10.0	25.3	14	26.0												215				DH59
MAY 01	15:40	9.5	15.5	5	26.0												248				DH59
MAY 30	16:05	14.0	64.8	28	26.0												232				DH59
JUL 04	11:05	18.0	27.7	13	26.0												251				DH59
AUG 01	17:05	24.0	13.3	7	26.0												246				DH59
SEP 05	11:45	13.5	5.84	7	26.0												272				DH59
OCT 02	10:15	6.5	7.73	8	26.0												258				DH59

NOTE : SINGLE VERTICAL LOCATED AT 26.0 METRES

BEAVER RIVER NEAR DORINTOSH - STATION NO. 05AD001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1978	MAY-OCT #	M-MS	153	MAY 02	13	OCT 03	---	---	---	---	---
1980	APR-OCT #	M-MS	318	APR 18 *	7	JUN 11	---	---	---	---	---
1981	APR-NOV #	M-MS	38	APR 15	5	SEP 22	---	---	---	---	---
1982	APR-SEP #	M-MS	263	APR 27	4	SEP 22	---	---	---	---	---
1983	APR-NOV #	M-MS	43	APR 19	1	SEP 07 *	---	---	---	---	---
1984	APR-OCT	M-MS	36	APR 11	5	MAY 01	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

BIG GULLY CREEK NEAR MAIDSTONE - STATION NO. 05EF005

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
MAR 31	09:10	1.0	0.891	83	MID												383				DH48
APR 04	09:25	0.5	3.88	18	MID												659				DH48
APR 05	14:55	1.0	3.80	19	MID												585				DH48
APR 13	12:10	3.0	4.83	26	MID												588				DH48
MAY 03	10:45	10.0	0.824	5	MID												1330				DH48
MAY 31	09:55	14.0	0.435	11	MID												1450				DH48

NOTE : SINGLE VERTICAL LOCATED AT MIDSTREAM

SASKATCHEWAN

BIG GULLY CREEK NEAR MAIDSTONE - STATION NO. 05EF005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1984	MAR-MAY	M-MS	83	MAR 31 *	5	MAY 03 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

BURNTOUT BROOK NEAR ARBORFIELD - STATION NO. OSKB005

SUSPENDED SEDIMENT FOR 1984

LOCATION: LAT 53 05 19 N LONG 103 40 45 W
DRAINAGE AREA: 305 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 3 424.14 TONNES FOR THE PERIOD MAR 01 TO JUN 12

REMARKS:

MAR				APR			MAY			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	0 B	0	0	1.88 B	11	1.78	0.824	54	3.84	1
2	0 B	0	0	2.07 B	54 S	9.68	0.731	36	2.27	2
3	0 B	0	0	4.24 B	140 S	51.3	0.618	18	0.96	3
4	0 B	0	0	5.15 B	196 S	87.4	0.646	22	1.23	4
5	0 B	0	0	5.40 B	300 S	166	0.647	17	0.95	5
6	0 B	0	0	7.42 B	382 S	245	0.558	13	0.63	6
7	0 B	0	0	8.84	585 S	497	0.382	10	0.33	7
8	0 B	0	0	8.63	409 S	305	0.480	5	0.20	8
9	0 B	0	0	8.59	513 S	425	0.430	2	0.07	9
10	0 B	0	0	8.98	480 S	366	0.590	10	0.82	10
11	0 B	0	0	8.68	386 S	235	0.841	14	0.78	11
12	0 B	0	0	4.75	302 S	124	0.884	22	1.36	12
13	0 B	0	0	3.86	252 S	86.2	0.673	41	2.06	13
14	0 B	0	0	3.10	215	57.6	0.985	50	4.17	14
15	0 B	0	0	2.44	177 S	37.3	0.988	50	4.19	15
16	0 B	0	0	2.12	145	26.6	1.03	55	5.16	16
17	0 B	0	0	1.87	116 S	16.7	1.10	55	5.23	17
18	0 B	0	0	1.63	83	11.7	1.65	106	15.2	18
19	0 B	0	0	1.38	65	7.81	2.05	145	25.9	19
20	0 B	0	0	1.26	47	5.12	2.44	180	37.8	20
21	0 B	0	0	0.915	26	2.06	2.98	228	58.9	21
22	0 B	0	0	0.682	15	0.80	2.95	210 S	53.5	22
23	0 B	0	0	0.587	12	0.58	2.51	169	36.7	23
24	0 B	0	0	0.519	11	0.48	2.34	151	32.8	24
25	0 B	0	0	0.548	10	0.47	2.62	198	44.4	25
26	0 B	0	0	0.578	16	0.80	2.59	196	44.3	26
27	0 B	0	0	0.675	42 S	2.45	2.28	162	31.9	27
28	0 B	0	0	0.845	62	4.53	1.92	126	20.7	28
29	0.035 B	0	0	0.818	74	5.44	1.56	87	11.7	29
30	1.73 B	4	0.60	0.826	71	5.69	1.26	64	7.06	30
31	2.08 B	9	1.62				1.05	41	3.72	31
TOTAL	3.845		2.22	100.735		2 776.01	42.387		459.68	TOTAL

JUN										
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	0.828	14	1.00							1
2	0.680	6	0.34							2
3	0.436	7	0.26							3
4	0.284	5	0.13							4
5	0.173	5	0.08							5
6	0.305	5	0.09							6
7	0.336	11	0.32							7
8	2.24	185	37.7							8
9	2.87	230	61.1							9
10	2.60	218	46.7							10
11	2.08	173	31.2							11
12	1.66	108 S	15.3							12
13	1.17									13
14	0.951									14
15	0.683									15
16	0.596									16
17	0.617									17
18	0.363									18
19	0.333									19
20	0.414									20
21	5.04									21
22	3.68									22
23	2.93									23
24	2.32									24
25	2.83									25
26	1.82									26
27	1.15									27
28	0.881									28
29	0.663									29
30	0.372									30
31										31
TOTAL	44.484		184.33							TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

BURNTOUT BROOK NEAR ARBORFIELD - STATION NO. 05KB005

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 02	13:45	0.5	1.58	B	57	10.0													485				D48
APR 03	09:15	0.5	4.00	B	139	10.0													285				D48
APR 04	08:35	0.5	4.60	B	187	10.0													285				D48
APR 04	12:45	0.5	4.40		183	10.0													268				D48
APR 05	05:00		8.80		330	10.0													268				D48
APR 05	14:20	1.0	5.80		300	10.0													250				D48
APR 06	08:10	1.0	8.80		478	10.0													280				D48
APR 07	08:15	1.0	11.7		738	10.0													252				D48
APR 08	09:05		8.86		431	10.0		23	32	52	63	76	87	92	97	100			249	13	55	32	D48
APR 09	06:45		9.84		584	10.0													222				D48
APR 10	08:10	3.0	9.30		471	10.0													245				D48
APR 10	09:40		1.19		470	8.5	M	28	39	61	75	87	93	97	100				254				D48
APR 10	09:45		1.93		466	8.5	M	21	31	51	68	85	88	88	92	99	100		247	7	54	39	D48
APR 10	09:50		1.98		478	10.0	M	22	42	61	76	86	92	96	98	100			247	34	35	31	D48
APR 10	09:55		2.16		456	12.0	M	25	42	63	74	87	94	98	100				247	4	50	42	D48
APR 10	10:00		1.93		473	13.5	M	24	45	65	78	89	95	99	100				248	8	52	42	D48
APR 11	08:00		7.20		425	10.0													264	5	50	45	D48
APR 12	08:50		4.75		313	10.0													258				D48
APR 13	08:20		4.10		261	10.0													267				D48
APR 15	09:10		2.45		185	10.0													285				D48
APR 17	08:45		1.88		120	10.0													274				D48
APR 17	14:05	7.0	1.86		121	MID	X												276				D48
APR 27	13:25	4.0	6.78		41	MID	X												271				DN48
MAY 22	14:20	11.0	2.92		211	MID	X												338				DN48
JUN 12	13:05	15.0	1.84		118	MID	X												389				DN48
																			403				DN48

NOTE : SINGLE VERTICAL LOCATED AT 10.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): M - A SEDIMENT MEASUREMENT VERTICAL X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

BURNTOUT BROOK NEAR ARBORFIELD - STATION NO. 05KB005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	884	APR 25	884	APR 25	---		---		---	---	---
1974	APR-APR	M-MS	586	APR 24	586	APR 24	---		---		---	---	---
1975	APR-MAY #	M-MS	555	APR 25	181	MAY 05	---		---		---	---	---
1976	APR-MAY #	M-S	852	APR 11	46	MAY 19	410	APR 08	3 540	*	---	---	---
1977	APR-APR #	M-MS	603	APR 10	57	APR 19	---		---		---	---	---
1978	APR-MAY #	M-MS	525	APR 16	113	APR 16	---		---		---	---	---
1979	APR-JUL #	M-MS	406	APR 22	26	JUL 05	---		---		---	---	---
1980	APR-MAY #	M-MS	342	APR 12	13	MAY 13	---		---		---	---	---
1982	APR-JUN #	M-MS	484	APR 20	26	JUN 11	---		---		---	---	---
1983	APR-JUN #	M-S	508	APR 20	12	JUN 14 *	428	APR 20	1 310		---	---	---
1984	APR-JUN	M-S	738	APR 07 *	41	APR 27	487	APR 07 *	3 620		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

CARROT RIVER NEAR ARMLEY - STATION NO. 05KB002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 04	09:15	0.5	2.39	B	53	MID	X												337				DN48
APR 08	09:20	1.0	23.2	B	340	MID		42	51	75	86	91	95	98	100				331	5	44	51	D48
APR 09	17:05	2.0	80.3		394	MID													323				D48
APR 11	17:20	4.0	40.3		267	MID													361				D48
APR 15	19:05	8.0	22.0		233	MID													476				D48
MAY 01	15:30	10.0	2.77		42	MID	X												727				DN48
MAY 24	15:05	10.0	14.9		185	MID													617				D48
JUN 14	10:35	14.0	10.3		131	MID													776				D48
JUL 10	09:40	15.0	0.715		62	MID	X												1120				DN48

NOTE : SINGLE VERTICAL IS UNDETERMINED

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

SASKATCHEWAN

CARROT RIVER NEAR ARMLEY - STATION NO. 05KB003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR #	M-MS	359	APR 25	268	APR 27	---		---	---	---	---
1974	APR-APR	M-MS	958	APR 21 *	172	APR 19	---		---	---	---	---
1975	APR-MAY #	M-MS	579	APR 28	220	MAY 06	---		---	---	---	---
1976	APR-MAY #	M-S	828	APR 10	60	MAY 19	3 590	APR 09	27 800	---	---	---
1977	APR-MAY #	M-MS	189	APR 14	54	MAY 03	---		---	---	---	---
1978	APR-MAY #	M-MS	547	APR 19	40	APR 11	---		---	---	---	---
1979	MAR-AUG #	M-S	424	APR 26	71	APR 19	11 800	APR 27 *	78 100 *	---	---	---
1980	APR-AUG #	M-MS	784	APR 18	22	AUG 14	---		---	---	---	---
1982	APR-JUN #	M-MS	386	APR 19	19	JUN 09 *	---		---	---	---	---
1984	APR-JUL	M-MS	340	APR 06	42	MAY 01	---		---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

CARROT RIVER NEAR KINISTINO - STATION NO. 05KA001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	76	APR 26 *	76	APR 26 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

CARROT RIVER NEAR SMOKY BURN - STATION NO. 05KC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1972	APR-MAY	M-S	477	APR 25	92	MAY 23	30 600	APR 25	247 000	---	---	---
1973	SEP-OCT #	M-MS	48	OCT 31	46	SEP 28	---		---	---	---	---
1974	FEB-AUG #	M-S	529	APR 23	26	AUG 27	38 700	APR 23 *	210 000	---	---	---
1975	MAR-OCT	B-S	1 230	JUN 28	18	OCT 23	11 200	MAY 02	178 000	732	732	---
1976	MAR-OCT	B-S	2 080	APR 10 *	12	MAY 24	26 100	APR 11	140 000	571	652	12.3
1977	MAR-NOV	B-S	782	APR 12	12	OCT 20	3 880	MAY 29	25 600	105	489	40.1
1978	MAR-OCT	B-S	1 800	APR 20	14	SEP 17	33 100	APR 20	280 000	1 140	637	33.6
1979	MAR-AUG #	M-S	730	APR 23	18	AUG 08	23 500	APR 27	287 000 *	---	---	---
1982	APR-OCT #	M-MS	1 880	APR 19	8	OCT 01 *	---		---	---	---	---

B - BOTH AUTOMATIC AND MANUAL SAMPLING M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

CONNELL CREEK NEAR CONNELL CREEK - STATION NO. 05KC002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1977	MAY-MAY	M-MS	71	MAY 03	71	MAY 03	---		---		---	---	---
1978	APR-MAY #	M-MS	914	MAY 29 *	58	APR 18	---		---		---	---	---
1980	APR-SEP #	M-MS	320	APR 18	47	SEP 04	---		---		---	---	---
1981	APR-APR #	M-MS	64	APR 23	28	APR 08 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

COTTONWOOD CREEK NEAR LUMSDEN - STATION NO. 05JF011

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : APR-APR MEAN LOAD (TONNES)	SUMMARY : APR-APR HISTORICAL MEAN LOAD (TONNES)	SUMMARY : APR-APR STANDARD ERROR OF MEAN %
1982	APR-JUN #	M-S	383	APR 18 *	5	JUN 08 *	1 570	APR 17 *	8 080	*	265	265	---
1983	APR-APR	M-S	86	APR 11	32	APR 15	11.4	APR 07	85.8		2.23	134	98.4

M - MANUAL SAMPLING

S - SEASONAL OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

CUTARM CREEK NEAR SPY HILL - STATION NO. 05JN015

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1971	APR-APR	M-MS	88	APR 27	88	APR 27	---		---		---	---	---
1973	MAR-APR #	M-MS	26	APR 12	6	MAR 29 *	---		---		---	---	---
1974	MAR-JUN #	M-S	411	APR 18 *	11	MAY 15	429	APR 18 *	1 800	*	---	---	---
1975	APR-OCT #	M-MS	210	APR 19	11	OCT 29	---		---		---	---	---
1976	APR-JUN #	M-MS	139	APR 06	22	JUN 22	---		---		---	---	---
1977	APR-OCT #	M-MS	57	OCT 04	14	APR 13	---		---		---	---	---
1978	MAR-OCT #	M-MS	180	MAR 26	14	OCT 04	---		---		---	---	---
1979	APR-JUN #	M-MS	190	APR 22	19	JUN 04	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

CYPRESS LAKE WEST INFLOW CANAL - STATION NO. 11AB078

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1978	MAY-MAY	M-MS	33	MAY 02	*	33	MAY 02	*	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

CYPRESS LAKE WEST OUTFLOW CANAL - STATION NO. 11AB077

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1978	MAY-MAY	M-MS	4	MAY 02	*	4	MAY 02	*	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

DOGHIDE RIVER BELOW TISDALE - STATION NO. 05KB009

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1974	APR-APR #	M-MS	224	APR 20		41	APR 24		---	---	---	---	---
1975	APR-MAY #	M-MS	269	APR 21		31	MAY 02		---	---	---	---	---
1976	APR-MAY #	M-MS	857	APR 05	*	21	APR 23	*	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

DOGHIDE RIVER NEAR RUNCIMAN - STATION NO. 05KB011

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 02	14:50	0.5	1.77	B	58	8.0			282				DH59
APR 04	18:30	1.0	4.28	B	173	7.0	X		218				DH59
APR 10	10:50	4.0	8.08		85	7.0	X		272				DH59
APR 12	13:30	5.0	4.44		39	8.0			420				DH59
APR 17	18:15	14.0	1.63		11	7.0	X		514				DH59
APR 26	16:45	7.0	0.431		5	MID	X		606				D49
MAY 24	16:15	11.0	1.39		10	MID	X		511				D49
JUN 12	11:45	15.0	3.15		20	MID	X		577				D49

NOTE : SINGLE VERTICAL LOCATED AT 8.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

DOGHIDE RIVER NEAR RUNCIMAN - STATION NO. 05KB011

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1977	APR-APR #	M-MS	448	APR 12	13	APR 22	---		---		---	---	---
1978	MAY-MAY	M-S	526	APR 22	85	APR 20	2 070	APR 28 *	13 800	*	---	---	---
1980	MAR-APR	M-S	786	APR 15 *	114	APR 11	1 930	APR 18	5 810		---	---	---
1981	MAR-APR	M-S	81	MAR 18	14	APR 15	10.2	APR 01	83.5		---	---	---
1982	APR-JUN #	M-MS	360	APR 19	5	MAY 10 *	---		---		---	---	---
1983	APR-MAY #	M-MS	305	APR 21	8	MAY 17	---		---		---	---	---
1984	APR-JUN	M-MS	173	APR 04	5	APR 26	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

EAGLE CREEK NEAR ENVIRON - STATION NO. 05EC006

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1975	MAY-SEP #	M-MS	40	MAY 28	5	SEP 23	---		---		---	---	---
1976	APR-SEP #	M-S	1 130	APR 08 *	2	JUN 23 *	2 640	APR 09 *	10 000	*	---	---	---
1977	APR-JUN #	M-MS	15	APR 27	3	JUN 22	---		---		---	---	---
1978	MAR-JUN #	M-MS	117	APR 12	10	JUN 30	---		---		---	---	---
1979	APR-JUN #	M-MS	134	APR 25	19	MAY 16	---		---		---	---	---
1980	APR-MAY #	M-MS	123	APR 03	9	MAY 08	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

EKAPO CREEK NEAR MARIEVAL - STATION NO. 05JM010

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1973	MAR-APR #	M-MS	487	MAR 22	40	MAR 15	---		---		---	---	---
1974	MAR-JUN	M-S	581	APR 17	11	MAY 14	881	APR 16	3 270		---	---	---
1975	APR-APR #	M-MS	348	APR 18	125	APR 25	---		---		---	---	---
1976	APR-MAY #	M-S	503	APR 08	10	MAY 27	1 980	APR 09 *	8 700	*	---	---	---
1977	MAY-MAY	M-MS	138	MAY 10	138	MAY 10	---		---		---	---	---
1978	MAR-APR #	M-MS	246	MAR 29	7	APR 13 *	---		---		---	---	---
1979	APR-JUN #	M-MS	923	APR 23 *	14	JUN 05	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

ETOMAMI RIVER NEAR BERTWELL - STATION NO. 05LB002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE VERTICAL SAMPLING (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND SILT CLAY	TYPE OF SAMPLER
APR 02	15:15	1.0	12.6	B	106	22.0		283		---
APR 03	17:00	2.0	14.1	B	113	22.0		237		---
APR 04	10:40	2.0	15.4	B	83	22.0		248		---
APR 05	09:55	4.0	16.3		50	22.0		278		---
APR 09	16:05	6.0	13.3		72	22.0		282		---
APR 11	13:45	7.0	12.7		50	22.0		285		---
APR 18	09:30	9.0	8.40		40	8.0 X		330		DH48
MAY 24	12:15	4.0	18.9		31	22.0		401		---
JUN 26	15:05	21.0	10.4		22	22.0		391		---
JUL 31	15:00	27.0	0.171		8	4.5 X		443		DH48
AUG 28	13:10	17.0	0.024		10	2.5 X		485		DH48
SEP 26	13:35	8.0	0.420		7	6.5 X		458		DH48

NOTE : SINGLE VERTICAL LOCATED AT 22.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

ETOMAMI RIVER NEAR BERTWELL - STATION NO. 05LB002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1984	APR-SEP	M-MS	113	APR 03 *	8	JUL 31 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY - STATION NO. 11AC041

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1971	APR-OCT #	M-MS	343	APR 07	17	OCT 28		---	---		---	---	---
1972	APR-OCT	M-MS	780	JUN 11	0	SEP 08 *		---	---		---	---	---
1973	MAR-SEP #	B-S	323	MAR 07	35	MAY 18	140	MAR 09	1 700		---	---	---
1974	MAR-OCT	B-S	1 440	AUG 15	17	OCT 25	2 520	APR 02	32 600		133	133	---
1975	MAR-OCT	B-S	3 720	MAY 06 *	35	SEP 30	11 000	MAY 06 *	64 300	*	222	178	28.0
1976	MAR-NOV	B-S	815	JUL 12	13	SEP 10	1 870	MAR 21	20 100		81.9	146	28.0
1977	MAR-AUG #	B-S	186	APR 12	7	APR 05	36.8	APR 10	804		---	---	---
1978	MAR-AUG #	M-MS	905	APR 01	38	JUN 20		---	---		---	---	---

B - BOTH AUTOMATIC AND MANUAL SAMPLING M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

FRENCHMAN RIVER BELOW VAL MARIE - STATION NO. 11AC051

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	SEP-OCT #	M-MS	48	SEP 05 *	37	OCT 04 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

GAINSBOROUGH CREEK NEAR STORTHOAKS - STATION NO. 05NF013

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	APR-APR #	M-MS	118	APR 18	20	APR 25 *	---	---	---	---	---
1976	APR-APR	M-MS	838	APR 10 *	838	APR 10	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

GAP CREEK ABOVE JUNCTION RESERVOIR - STATION NO. 05NA072

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	36	APR 05 *	36	APR 05 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

GOOSEHUNTING CREEK NEAR BEATTY - STATION NO. 05NA009

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	80	APR 28 *	80	APR 28 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

MAULTAIN RIVER ABOVE NORBERT RIVER - STATION NO. 05BD001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1983	MAY-AUG #	M-MS	3	AUG 10 *	1	MAY 12 *	---		---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

INDIANHEAD CREEK NEAR INDIAN HEAD - STATION NO. 05JL002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1970	APR-MAY #	M-MS	1 010	APR 07	18	APR 15	---		---	---	---	---
1971	APR-APR #	M-MS	148	APR 12	7	APR 26	---		---	---	---	---
1973	MAR-MAR	M-MS	31	MAR 13	31	MAR 13	---		---	---	---	---
1974	APR-MAY #	M-MS	1 510	APR 20	6	MAY 13 *	---		---	---	---	---
1975	APR-APR #	M-MS	527	APR 16	186	APR 25	---		---	---	---	---
1976	APR-APR #	M-MS	575	APR 05	7	APR 29	---		---	---	---	---
1978	MAR-APR #	M-MS	325	MAR 29	47	APR 05	---		---	---	---	---
1979	APR-MAY #	M-MS	1 380	APR 20 *	24	MAY 02	---		---	---	---	---
1980	MAR-APR #	M-MS	571	APR 02	43	APR 12	---		---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

JEWEL CREEK NEAR GOODWATER - STATION NO. 05NB014

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1974	MAR-JUN	M-S	107	APR 16	6	JUN 20 *	383	APR 17	878	---	---	---
1975	MAR-OCT	M-S	87	APR 26	14	APR 18	191	APR 21	728	3.88	3.88	---
1976	MAR-OCT	M-S	215	APR 03 *	7	MAY 03	472	APR 03 *	1 440 *	5.80	4.44	32.9
1978	MAR-JUL #	M-MS	95	MAR 29	13	APR 04	---		---	---	---	---
1979	APR-MAY #	M-MS	151	APR 20	10	MAY 01	---		---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

JUMPING DEER CREEK NEAR LIPTON - STATION NO. 05JK004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1973	MAR-MAR	M-MS	6	MAR 21	6	MAR 21	---		---		---	---	---
1974	APR-JUL #	M-MS	89	JUL 24	2	MAY 01 *	---		---		---	---	---
1975	APR-APR #	M-MS	28	APR 17	10	APR 24	---		---		---	---	---
1976	APR-JUN #	M-S	111	JUN 29	8	APR 28	25.4	APR 09 *		140 *	---	---	---
1977	APR-MAY #	M-MS	220	MAY 11 *	17	APR 12	---		---		---	---	---
1978	MAY-MAY	M-MS	181	MAY 08	181	MAY 08	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

LEATHER RIVER BELOW PRESBYTERIAN RIVER - STATION NO. 05KB010

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1976	APR-APR #	M-MS	626	APR 08 *	32	APR 23 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

LEATHER RIVER NEAR STAR CITY - STATION NO. 05KB008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	88	APR 26	88	APR 26	---		---		---	---	---
1974	APR-APR #	M-MS	270	APR 30 *	25	APR 24	---		---		---	---	---
1975	APR-MAY #	M-MS	70	APR 29	10	MAY 02 *	---		---		---	---	---
1976	APR-APR	M-S	185	APR 08	10	APR 15	35.0	APR 08 *		190 *	---	---	---
1977	APR-APR #	M-MS	60	APR 13	28	APR 11	---		---		---	---	---
1978	APR-APR #	M-MS	51	APR 18	17	APR 24	---		---		---	---	---
1978	APR-APR #	M-MS	74	APR 28	14	APR 30	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

LONG CREEK AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY - STATION NO. 05NA003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1974	MAR-JUN	M-S	211 APR 13 *		6 JUN 20 *		841 APR 11 *	6 130 *	---	---	---
1975	APR-OCT #	M-MS	105	APR 25	12	OCT 30	---	---	---	---	---
1976	APR-JUL #	M-MS	207	JUN 15	15	JUN 01	---	---	---	---	---
1977	MAR-MAY #	M-MS	40	MAR 14	9	APR 05	---	---	---	---	---
1978	MAR-OCT #	M-MS	78	MAR 30	6	JUL 18	---	---	---	---	---
1979	APR-MAY #	M-MS	183	APR 22	11	MAY 30	---	---	---	---	---
1981	FEB-FEB	M-MS	98	FEB 20	98	FEB 20	---	---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

LONG CREEK NEAR MAXIM - STATION NO. 05NA004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	APR-JUN #	M-MS	132	APR 20	6	JUN 08	---	---	---	---	---
1976	MAR-JUL #	M-MS	86	JUN 15	3	MAY 04	---	---	---	---	---
1978	MAR-OCT #	M-MS	228	JUN 26 *	1	JUL 31 *	---	---	---	---	---
1979	APR-MAY #	M-MS	122	APR 21	2	MAY 30	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MCDONALD CREEK NEAR MCCORD - STATION NO. 05JA003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1982	FEB-APR #	M-MS	181 APR 13 *		25 MAR 23 *		---	---	---	---	---
1983	JUL-JUL	M-MS	88 JUL 11		88 JUL 11		---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MELFORT CREEK NEAR MELFORT - STATION NO. 05KB001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : APR-APR MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	38	APR 27	38	APR 27	---	---	---	---	---
1974	APR-APR	M-MS	159	APR 20 *	159	APR 20	---	---	---	---	---
1975	APR-MAY #	M-MS	73	APR 29	27	MAY 05	---	---	---	---	---
1976	APR-MAY #	M-MS	60	APR 05	8	MAY 21 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MOOSE JAW RIVER ABOVE THUNDER CREEK - STATION NO. 05JE001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1972	MAR-NOV #	M-MS	384	MAR 28 *	10	NOV 02 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MOOSE JAW RIVER NEAR BURDICK - STATION NO. 05JE006

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	INSTANT. CONCENT. (mg/L)	SINGLE VERTICAL	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
MAR 24	10:50		0.538	31	MID												573				DH48

NOTE : SINGLE VERTICAL IS UNDETERMINED

MOOSE JAW RIVER NEAR BURDICK - STATION NO. 05JE006

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-OCT MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1972	MAR-NOV #	M-MS	237	APR 05	8	SEP 05		---	---	---	---	---
1973	MAR-OCT	M-S	43	JUN 18	6	MAR 18 *	5.09	JUN 04	88.7	0.41	0.41	---
1974	MAR-NOV	B-S	619	APR 19	14	JUL 09	22 400	APR 20 *	178 000 *	726	363	99.9
1975	MAR-OCT	B-S	697	APR 23	20	AUG 27	5 080	APR 23	82 500	259	327	85.0
1976	MAR-OCT	B-S	988	APR 05	27	AUG 24	8 330	APR 07	111 000	455	359	42.8
1977	MAR-NOV	B-S	195	MAY 31	18	SEP 09	384	MAY 28	1 320	5.40	288	48.1
1978	MAR-OCT #	B-S	314	APR 06	17	JUN 02	428	APR 07	3 380	---	---	---
1979	MAR-NOV #	B-S	1 210	JUL 13 *	22	NOV 01	5 080	APR 25	58 000	---	---	---
1980	MAR-JUL #	M-S	264	APR 14	21	MAY 13	90.1	APR 11	1 050	---	---	---
1982	MAR-AUG #	M-S	828	APR 18	14	JUN 23	8 310	APR 18	78 900	---	---	---
1983	MAR-MAY #	M-S	327	APR 11	50	MAY 24	1 840	APR 10	20 900	---	---	---
1984	MAR-MAR	M-MS	31	MAR 24	31	MAR 24		---	---	---	---	---

B - BOTH AUTOMATIC AND MANUAL SAMPLING M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MOOSE JAW RIVER NEAR ROULEAU - STATION NO. 05JE004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1973	APR-APR	M-MS	47	APR 05 *	47	APR 05 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

MOOSE MOUNTAIN CREEK NEAR OXBOW - STATION NO. 05ND004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MAR-APR MEAN LOAD (TONNES)	SUMMARY : MAR-APR HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-APR STANDARD ERROR OF MEAN %
1974	MAR-SEP #	M-S	325	APR 18	3	JUN 18	3 450	APR 18	5 750		180	180	---
1975	MAR-OCT #	M-S	134	APR 19	4	MAY 29	1 330	APR 29	5 700		87.2	124	29.4
1976	MAR-OCT #	M-S	508	APR 08 *	5	MAY 04	7 810	APR 08 *	23 100	*	---	---	---
1977	APR-NOV #	M-MS	25	MAY 17	5	NOV 08	---		---		---	---	---
1978	MAR-OCT #	M-MS	33	APR 01	1	MAY 15 *	---		---		---	---	---
1979	APR-AUG #	M-MS	228	APR 21	2	MAY 30	---		---		---	---	---
1980	APR-APR #	M-MS	57	APR 02	5	APR 28	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

MUDJATIK RIVER NEAR FORCIER LAKE - STATION NO. 05BC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1981	MAY-OCT #	M-MS	24	MAY 05	2	OCT 15 *	---		---		---	---	---
1982	MAY-OCT #	M-MS	26	MAY 05 *	7	AUG 18	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

NASHLYN CANAL NEAR CONSUL - STATION NO. 11AB018

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1978	MAY-MAY	M-MS	20	MAY 01 *	20	MAY 01 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT - STATION NO. 05GG001

SUSPENDED SEDIMENT FOR 1984

LOCATION: LAT 53 12 10 N LONG 105 46 06 W
DRAINAGE AREA: 131 000 km²
TYPE OF FLOW: REGULATED SINCE 1963
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 333 870 TONNES FOR THE PERIOD APR 01 TO OCT 31

REMARKS:

	APR			MAY			JUN			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	121 B	50 E	523	223	58	1 310	184	55	874	1
2	131 B	50 E	586	225	65 S	1 260	187	51	736	2
3	142 B	49 E	601	224	58	1 120	159	48	832	3
4	167 B	57 E	832	216	51 S	861	155	43	576	4
5	222 B	158 E	3 030	212	51	934	157	40	543	5
6	285 B	430 E	10 600	210	51	925	153	37	488	6
7	356 B	587 E	18 100	208	51 S	908	153	36	476	7
8	754 B	528 E	34 500	205	49 S	868	180	36 S	486	8
9	581 B	418 E	21 000	204	54 S	952	189	37	540	9
10	512 B	340 E	15 000	195	55	931	189	38 S	569	10
11	492	342 E	14 500	188	44	715	188	40 S	581	11
12	511	370 S	16 300	181	39	644	177	42 S	642	12
13	531	359	16 500	190	36 S	824	178	44	677	13
14	499	297	12 800	195	40	877	172	45 S	688	14
15	433	218	8 180	204	42 S	740	170	48	676	15
16	382	184 S	5 410	191	43	710	179	50	773	16
17	353	146	4 450	182	43 S	713	182	60 S	943	17
18	364	140 S	4 280	202	43	750	237	125	2 560	18
19	344	128	3 830	200	42 S	728	388	205 S	6 870	19
20	312	119 S	3 210	195	40	674	402	159	5 520	20
21	292	113	2 850	188	38	617	389	126 S	4 020	21
22	288	107	2 660	185	36 S	575	354	119	3 640	22
23	285	105 S	2 590	184	36	572	350	118 S	3 570	23
24	280	98	2 480	180	36	560	348	116	3 490	24
25	268	82 S	1 900	190	35 S	575	351	110	3 340	25
26	250	82	1 770	188	35	569	357	108 S	3 270	26
27	237	103 S	2 110	209	37 S	668	357	107	3 300	27
28	229	128	2 550	239	44	909	357	109 S	3 360	28
29	229	98	1 940	234	50 S	1 010	338	111	3 220	29
30	225	74 S	1 440	223	54	1 040	300	114 S	2 950	30
31				208	58 S	987				31
TOTAL	10 078		215 452	6 308		25 284	7 358		60 004	TOTAL

	JUL			AUG			SEP			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	258	100	2 240	180	43	869	198	53	911	1
2	240	78 S	1 620	183	41 S	642	194	48 S	805	2
3	234	88 S	1 370	135	41	476	183	42	884	3
4	233	57 S	1 150	129	40 S	446	168	36 S	516	4
5	239	51	1 050	130	39	438	151	31 S	404	5
6	243	53	1 110	128	37 S	403	138	31	370	6
7	238	57 S	1 170	115	43 S	427	142	35	429	7
8	240	62	1 280	114	43	424	157	44 S	587	8
9	280	70 S	1 570	115	41	407	179	53	820	9
10	275	70	1 880	119	40	411	182	46	723	10
11	271	60	1 400	127	38 S	426	175	37 S	559	11
12	258	53 S	1 180	118	36	391	169	33	482	12
13	250	48	1 080	115	37	366	158	31	423	13
14	240	47	975	113	37	361	152	30	394	14
15	223	46 S	888	112	37	358	152	30 S	420	15
16	206	44	776	109	37 S	348	178	31	477	16
17	193	41 S	684	100	37	320	188	32	464	17
18	180	39	607	102	38 S	335	188	33 S	478	18
19	167	36 S	546	112	37	358	167	31	447	19
20	157	41	552	124	35	375	157	27	368	20
21	198	46 S	787	139	34	379	153	25	330	21
22	190	46	765	139	34	378	153	26	344	22
23	178	44 S	688	128	33 S	359	157	26 S	360	23
24	168	43	626	132	36	411	166	30	435	24
25	165	41 S	584	151	46	600	169	29 S	423	25
26	154	40	532	172	60 S	892	159	27	371	26
27	147	40	508	203	72	1 260	148	26 S	335	27
28	148	40 S	505	211	78	1 390	147	25	318	28
29	148	38	489	204	70	1 230	147	25	318	29
30	151	40 S	522	198	63	1 070	157	27	366	30
31	182	46	723	200	57	985				31
TOTAL	6 456		28 890	4 302		17 242	4 804		14 370	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT - STATION NO. 05GG001

SUSPENDED SEDIMENT FOR 1984

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	234	63	1 270							1
2	269	78	1 840							2
3	251	62 S	1 340							3
4	227	55	1 080							4
5	210	51	925							5
6	207	48	858							6
7	213	46	847							7
8	209	45 S	813							8
9	196	46	782							9
10	179	43 S	665							10
11	165	40	570							11
12	165	34	485							12
13	173	29	433							13
14	173	27 S	404							14
15	174	27	406							15
16	178	27	416							16
17	185	27	432							17
18	182	27	425							18
19	172	27	401							19
20	186	30	482							20
21	203	35	614							21
22	214	40	740							22
23	211	38	693							23
24	198	36	619							24
25	191	34	561							25
26	201	32	556							26
27	203 B	30	526							27
28	204 B	28	511							28
29	185 B	28	446							29
30	155 B	27	362							30
31	155 B	27	362							31
TOTAL	6 070		20 848							TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT - STATION NO. 05GG001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 12	10:35	2.5	86.4	343	86.0	M												241				D49
APR 12	11:00	2.5	111	416	110	M												240				D49
APR 12	11:30	2.5	86.6	439	155	M												227				D49
APR 12	11:35	2.5	500	345	189													231				D49
APR 12	11:45	2.5	101	337	196	M												223				D49
APR 12	12:05	2.5	92.8	317	241	M												223				D49
APR 18	10:55	7.0	383	152	189																	D49
APR 18	19:00	7.0	370	155	189													208				D49
APR 18	15:50	10.0	354	128	189																	D49
APR 20	10:05	11.0	313	113	189													209				D49
APR 23	15:25	10.0	287	100	189													226				D49
APR 25	16:55	8.0	284	74	189																	D49
APR 25	17:00	8.0	284	74	189																	D49
APR 27	19:15	5.0	333	111	189																	D49
APR 30	17:45	8.0	224	86	189													256				D49
MAY 02	16:55	10.0	224	82	189																	D49
MAY 04	17:10	11.0	218	47	189																	D49
MAY 07	12:40	8.0	208	49	189													271				D49
MAY 08	14:00	8.0	208	45	189													276				D49
MAY 09	12:40	10.0	208	51	189																	D49
MAY 13	16:00	10.0	190	36	189													299				D49
MAY 15	18:25	15.0	204	41	189																	D49
MAY 17	19:00	12.0	194		189																	D49
MAY 19	16:50	12.0	198	40	189													281				D49
MAY 22	09:50	12.0	185	36	189																	D49
MAY 25	18:50	11.0	195	35	189													306				D49
MAY 27	10:40	12.0	206	35	189																	D49
MAY 29	19:00	16.0	229	50	189													304				D49
MAY 31	18:35	15.0	199	56	189																	D49
JUN 08	12:00	14.0	159	35	189													312				D49
JUN 10	11:35	15.0	159	39	189																	D49
JUN 11	11:55	15.0	166	39	189																	D49
JUN 12	12:00	16.0	178	42	189													334				D49
JUN 14	17:00	18.0	169	46	189																	D49
JUN 17	19:45	20.0	183	65	189																	D49
JUN 19	18:35	19.0	412	202	189													296				D49
JUN 21	13:35	18.0	366	125	189																	D49
JUN 23	11:15	18.0	350	122	189																	D49
JUN 26	11:50	19.0	356	109	189													235				D49
JUN 28	12:45	20.0	358	114	189													231				D49
JUN 30	18:30	20.0	291	120	189																	D49
JUL 02	16:40	19.0	237	78	189																	D49
JUL 03	13:35	17.0	47.5	58	85.0	M												285				D49
JUL 03	14:10		52.1	78	122	M												254				D49
JUL 03	14:30		47.7	81	158	M												240				D49
JUL 03	14:40		243	76	189													239				D49
JUL 03	14:55		50.1	81	197	M												240				D49
JUL 03	15:05		45.8	53	238	M												243				D49
JUL 04	18:15	20.0	233	56	189																	D49
JUL 07	19:10	20.0	237	52	189																	D49
JUL 08	12:15	18.0	262	74	189													226				D49
JUL 12	14:05	21.0	256	55	189																	D49
JUL 15	14:30	20.0	222	49	189																	D49
JUL 17	19:30	21.0	191	44	189													202				D49
JUL 18	19:20	21.0	189	41	189																	D49
JUL 21	16:20	22.0	199	52	189													196				D49
JUL 23	19:30	21.0	174	46	189																	D49
JUL 25	18:00	23.0	163	46	189																	D49
JUL 28	14:30	25.0	148	44	189													202				D49
JUL 30	10:45	25.0	149	43	189																	D49
AUG 02	11:40	23.0	152	46	189																	D49
AUG 04	16:55	25.0	126	46	189													212				D49
AUG 06	15:40	25.0	123	42	189																	D49
AUG 07	10:40	23.0	115	48	189																	D49
AUG 11	17:50	24.0	126	45	189													215				D49
AUG 16	17:45	21.0	107	44	189																	D49
AUG 18	16:30	23.0	104	45	189													221				D49
AUG 23	18:20	21.0	124	39	189																	D49
AUG 28	20:30	21.0	165	77	189													221				D49
SEP 02	19:35	15.0	191	86	189																	D49
SEP 04	19:40	15.0	182	33	189													185				D49
SEP 05	10:45	14.0	152	34	189													184				P81
SEP 05	12:35		150		189													184				P81
SEP 05	13:45	14.0	27.5	24	90.0	M												180				P81
SEP 05	13:50		30.6	28	136	M												180				P81
SEP 05	14:00		29.3	38	162	M												180				P81
SEP 05	14:10		148	38	189													180				P81
SEP 05	14:15		28.3	32	198	M												177				P81
SEP 05	14:20		28.4	29	236	M												178				P81
SEP 08	16:05	11.0	161	84	189																	D49
SEP 11	18:50	10.0	173	42	189													184				D49
SEP 15	14:50	12.0	164	38	189																	D49
SEP 16	17:10	14.0	170	40	189													178				D49
SEP 23	18:20	11.0	168	33	189																	D49
SEP 25	18:00	10.0	168	35	189													188				D49
SEP 27	18:15	10.0	147	31	189																	D49
OCT 03	18:50	9.0	245	70	189													215				D49
OCT 08	18:15	13.0	206	83	189																	D49
OCT 10	15:55	12.0	176	61	189													206				D49
OCT 14	16:05	9.0	173	32	189																	D49

NOTE : SINGLE VERTICAL LOCATED AT 189 METRES

VERTICAL SYMBOL(S): M - A SEDIMENT MEASUREMENT VERTICAL

NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT - STATION NO. 05GG001

POINT INTEGRATING PARTICLE-SIZE ANALYSIS OF SUSPENDED SEDIMENT FOR 1984

DATE	TIME	INSTANT. DISCHARGE (m^3/s)	WATER TEMP. (°C)	SAMPLING VERTICAL (m)	DEPTH OF SAMPLE (m)	CONCENT. OF SAMPLE (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES	DISSOLVED SOLIDS (mg/L)	PERCENT SAND SILT CLAY
SEP 05	11:15	27.8	14.0	80	0.15	18	DATA NOT AVAILABLE	183	
SEP 05	11:15	27.8	14.0	80	0.72	18	DATA NOT AVAILABLE	199	
SEP 05	11:15	27.8	14.0	80	1.20	23	DATA NOT AVAILABLE	181	
SEP 05	11:15	27.8	14.0	80	1.35	29	DATA NOT AVAILABLE	181	
SEP 05	11:15		14.0	80	1.50		STREAMBED		
SEP 05	11:15	30.8	14.0	126	0.15	30	DATA NOT AVAILABLE	186	
SEP 05	11:15	30.8	14.0	126	0.85	27	DATA NOT AVAILABLE	189	
SEP 05	11:15	30.8	14.0	126	1.36	28	DATA NOT AVAILABLE	188	
SEP 05	11:15	30.8	14.0	126	1.55	44	DATA NOT AVAILABLE	190	
SEP 05	11:15		14.0	126	1.70		STREAMBED		
SEP 05	11:15	29.3	14.0	162	0.15	38	DATA NOT AVAILABLE	182	
SEP 05	11:15	29.3	14.0	162	0.84	37	DATA NOT AVAILABLE	182	
SEP 05	11:15	29.3	14.0	162	1.02	62	DATA NOT AVAILABLE	186	
SEP 05	11:15	29.3	14.0	162	1.13		SAMPLE DESTROYED		
SEP 05	11:15		14.0	162	1.29		STREAMBED		
SEP 05	11:15	29.3	14.0	198	0.15	27	DATA NOT AVAILABLE	177	
SEP 05	11:15	29.3	14.0	198	0.60	29	DATA NOT AVAILABLE	183	
SEP 05	11:15	29.3	14.0	198	0.95	33	DATA NOT AVAILABLE	181	
SEP 05	11:15	29.3	14.0	198	1.04	61	DATA NOT AVAILABLE	177	
SEP 05	11:15		14.0	198	1.19		STREAMBED		
SEP 05	11:15	24.4	14.0	236	0.15	28	DATA NOT AVAILABLE	177	
SEP 05	11:15	24.4	14.0	236	0.71	27	DATA NOT AVAILABLE	176	
SEP 05	11:15	24.4	14.0	236	1.14	31	DATA NOT AVAILABLE	193	
SEP 05	11:15	24.4	14.0	236	1.27	32	DATA NOT AVAILABLE	181	
SEP 05	11:15		14.0	236	1.42		STREAMBED		

NOTE : SINGLE VERTICAL LOCATED AT 189 METRES

NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT - STATION NO. 05GG001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : JAN-DEC MEAN LOAD (TONNES)	SUMMARY : JAN-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY : JAN-DEC STANDARD ERROR OF MEAN %
1958	APR-OCT	M-S	2 880	JUL 08	39	SEP 29	289 000	JUL 08	3 200 000		---	---	---
1962	APR-DEC	M-S	880	AUG 16	9	DEC 12	41 500	AUG 16	1 610 000		---	---	---
1963	JAN-DEC	M-C	1 250	APR 20	5	JAN 30	98 800	APR 22	2 580 000		7 060	7 060	---
1964	JAN-DEC	M-C	1 440	MAY 14	1	MAR 11 *	126 000	MAY 14	3 020 000		8 250	7 880	7.6
1965	JAN-DEC	M-C	1 820	JUN 29	5	FEB 19	349 000	JUL 05	9 300 000	*	25 500	13 800	43.8
1966	JAN-DEC	M-C	2 400	JUL 14	3	MAR 17	229 000	JUL 13	2 810 000		7 700	12 100	36.9
1967	JAN-DEC	M-C	806	JUN 26	5	APR 03	80 900	JUN 26	1 660 000		4 550	10 800	35.6
1968	JAN-DEC	M-C	487	JUN 22	4	DEC 05	22 100	JUN 21	851 000		2 330	9 230	36.6
1969	JAN-DEC	M-C	2 100	APR 15	3	MAR 31	245 000	JUL 14	4 080 000		11 200	8 510	30.2
1970	JAN-DEC	M-C	2 410	JUN 25	2	APR 03	185 000	JUN 26	2 350 000		6 450	9 130	27.5
1971	JAN-DEC	M-C	1 810	APR 22	4	APR 05	180 000	APR 24	3 730 000		10 200	9 250	24.0
1972	JAN-DEC	M-C	2 400	JUL 02	4	MAR 13	485 000	JUL 02	4 520 000		12 300	9 550	21.0
1973	JAN-DEC	M-C	823	APR 12	9	MAR 28	32 600	JUL 13	1 310 000		3 600	8 010	21.0
1974	JAN-DEC	M-C	3 050	APR 23 *	8	MAR 21	1 020 000	APR 23 *	7 320 000		20 000	8 930	19.7
1975	JAN-DEC	M-C	357	MAY 06	4	APR 10	32 500	MAY 01	893 000		1 900	8 310	20.5
1976	JAN-OCT #	M-MS	184	APR 22	9	MAR 22	---	---	---		---	---	---
1977	JAN-DEC	M-C	767	JUN 07	9	MAR 04	67 200	JUN 08	1 010 000		2 750	8 840	20.6
1978	JAN-DEC	M-C	812	JUL 21	19	MAR 22	43 000	JUL 20	1 190 000		3 270	8 470	20.6
1979	FEB-DEC #	M-S	333	MAY 11	4	DEC 18	15 800	MAY 11	231 000		---	---	---
1980	JAN-OCT #	M-S	1 630	JUN 13	12	JAN 14	189 000	JUN 13	2 270 000		---	---	---
1981	JAN-OCT #	M-S	1 130	JUL 26	11	JAN 05	81 400	AUG 02	1 590 000		---	---	---
1982	MAY-OCT	M-S	1 180	JUL 13	32	SEP 03	188 000	JUL 13	2 070 000		---	---	---
1983	MAY-NOV	M-S	454	JUL 14	19	NOV 03	24 400	JUL 14	557 000		---	---	---
1984	APR-OCT	M-S	438	APR 12	24	SEP 05	34 500	APR 08	384 000		---	---	---

M - MANUAL SAMPLING

C - CONTINUOUS OPERATION S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

NORTH SASKATCHEWAN RIVER NEAR BORDEN - STATION NO. 05GD001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : HISTORICAL STANDARD ERROR OF MEAN %
1955	APR-OCT	M-S	1 180	JUN 21 *	32	SEP 26 *	78 400	JUN 21 *	388 000	*	---	---	---
1956	MAY-OCT	M-S	1 080	JUN 12	41	OCT 01	32 800	JUN 14	335 000		---	---	---
1957	MAY-OCT	M-S	585	MAY 27	44	JUL 29	33 900	MAY 27	243 000		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

OVERFLOWING RIVER NEAR HUDSON BAY - STATION NO. 05LD003

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP (°C)	INSTANT DISCHARGE (m³/s)		INSTANT CONCENT. (mg/L)		SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 03	12:30	0.5	0.841	B	6		5.0	X												238				DH48
APR 05	11:05	0.5	2.01	B	11		5.0	X												213				DH48
APR 10	11:35	0.5	4.35		16		5.0	X												189				DH48
APR 12	09:45	1.0	5.21		15		5.0	X												186				DH48
APR 19	11:45	5.0	5.79		13		5.0	X												162				DH48
APR 26	15:15	2.0	9.54		17		5.0	X												166				DH48
MAY 23	11:55	9.0	14.2		6		10.0													188				D48
JUN 27	11:15	21.0	1.84		7		5.0	X												230				DH48
AUG 01	12:40	25.0	0.007		5		0.8	X												308				DH48
AUG 30	11:05	15.0	0.002		7		0.8	X												364				DH48
SEP 27	12:00	5.0	0.378		3		2.8	X												309				DH48

NOTE : SINGLE VERTICAL LOCATED AT 10.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

OVERFLOWING RIVER NEAR HUDSON BAY - STATION NO. 05LD003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : HISTORICAL STANDARD ERROR OF MEAN %
1984	APR-SEP	M-MS	17	APR 26 *	3	SEP 27 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

PHEASANT CREEK NEAR ABERNETHY - STATION NO. 05JL005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1970	APR-APR #	M-MS	81 APR 07		13 APR 14		---	---	---	---	---
1971	APR-APR #	M-MS	98 APR 11		13 APR 26		---	---	---	---	---
1973	MAR-MAR #	M-MS	67 MAR 13		12 MAR 19		---	---	---	---	---
1974	APR-JUN #	M-MS	151 APR 19	*	3 MAY 14	*	---	---	---	---	---
1975	APR-APR	M-MS	138 APR 30		138 APR 30		---	---	---	---	---
1976	APR-JUN #	M-MS	88 APR 07		12 JUN 29		---	---	---	---	---
1977	MAY-MAY	M-MS	79 MAY 11		79 MAY 11		---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

PINTO CREEK NEAR WOODROW - STATION NO. 05JA004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1982	MAR-APR	M-S	110 APR 21	*	36 MAR 25		387 APR 02 *	2 560 *	---	---	---
1983	APR-APR #	M-MS	84 APR 05		27 APR 12	*	---	---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

PIPESTONE CREEK NEAR MOOSOMIN - STATION NO. 05NE001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1973	MAR-MAR #	M-MS	73 MAR 22	*	84 MAR 07	*	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

PRESBYTERIAN RIVER ABOVE LEATHER RIVER - STATION NO. 05KB013

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1976	APR-APR #	M-MS	489 APR 08	*	28 APR 23	*	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

QU'APPELLE RIVER ABOVE BUFFALO POUND LAKE - STATION NO. 05JG004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	MAR-NOV #	M-MS	71	NOV 02 *	14	APR 11 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

QU'APPELLE RIVER AT TANTALLON - STATION NO. 05JM003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	MAR-JUL #	M-MS	63	MAY 22 *	17	MAR 13 *	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

QU'APPELLE RIVER NEAR LUMSDEN - STATION NO. 05JF001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	APR-NOV #	M-MS	583	APR 25	26	AUG 32	---		---		---	---	---
1975	APR-AUG #	M-MS	889	APR 24	115	JUN 05	---		---		---	---	---
1976	APR-OCT #	M-S	809	APR 05	42	OCT 27	9 140	APR 05	180 000	*	---	---	---
1977	APR-NOV #	M-MS	161	JUL 12	23	APR 20	---		---		---	---	---
1978	MAR-OCT #	M-S	451	APR 11	18	OCT 18 *	740	APR 09	7 390		---	---	---
1979	APR-NOV #	M-S	916	APR 27 *	20	APR 04	7 630	APR 28	105 000		---	---	---
1980	APR-OCT #	M-S	342	APR 15	25	MAY 14	680	APR 10	6 790		---	---	---
1981	APR-OCT #	M-S	174	JUL 15	23	OCT 29	158	JUL 15	4 820		---	---	---
1982	APR-OCT #	M-S	732	APR 23	22	OCT 26	13 800	APR 21 *	138 000		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

QU'APPELLE RIVER NEAR WELBY - STATION NO. 05JH001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	PERCENT SILT	PERCENT CLAY	TYPE OF SAMPLER
APR 10	15:40	4.5	2.53	22	8.0 X												730				DH48
APR 25	10:50	10.0	1.62	26	4.0 X												958				DH48
MAY 01	15:05	9.0	1.18	49	3.5 X												825				DH48
MAY 14	15:30	16.0	2.84	32	3.0 X												987				DH48
MAY 29	14:50	15.0	1.98	36	11.0 X												1030				DH48
JUN 11	15:00	18.0	1.44	82	8.0 X												1080				DH48
JUN 26	14:55	23.0	1.49	98	6.0 X												1050				DH48
JUL 18	09:10	21.0	0.846	71	5.0 X												1080				DH48
AUG 07	15:00	27.0	0.183	91	MID X												980				DIP

NOTE : SINGLE VERTICAL IS UNDETERMINED

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

QU'APPELLE RIVER NEAR WELBY - STATION NO. 05JH001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	MAY-NOV #	M-MS	174	AUG 13	35	JUN 10	---	---	---	---	---
1976	APR-SEP #	M-MS	648	APR 11 *	44	MAY 26	---	---	---	---	---
1977	MAY-OCT #	M-MS	214	MAY 24	43	SEP 08	---	---	---	---	---
1978	APR-NOV #	M-MS	215	JUN 01	30	OCT 18	---	---	---	---	---
1979	APR-NOV #	M-MS	305	APR 28	49	JUL 31	---	---	---	---	---
1980	APR-MAY #	M-MS	388	APR 17	108	MAY 28	---	---	---	---	---
1981	MAY-MAY #	M-MS	88	MAY 11	53	MAY 26	---	---	---	---	---
1982	APR-SEP #	M-MS	326	APR 28	53	JUL 20	---	---	---	---	---
1983	APR-NOV #	M-MS	510	APR 21	30	OCT 11	---	---	---	---	---
1984	APR-AUG	M-MS	98	JUN 26	22	APR 10 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

RED DEER RIVER NEAR ERWOOD - STATION NO. 05LC001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		INSTANT. CONCENT. (mg/L)		SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 04	17:50	1.0	85.7	B	102		40.0													234				D48
APR 05	14:10	1.0	84.1	B	78		40.0													218				D48
APR 10	15:25	3.0	58.7		47		40.0													282				D48
APR 18	15:00	7.0	55.1		39		40.0													255				D48
MAY 23	16:10	8.0	135		53		40.0													289				D48
JUN 27	15:05	21.0	45.0		38		40.0													348				D48
AUG 01	15:15	27.0	1.73		12		MID	X												391				DH48
AUG 28	16:00	18.0	0.428		15		MID	X												358				DH48
SEP 27	14:25	5.0	1.98		8		24.0	X												312				DH48
OCT 30	15:00	0.5	4.14		8		24.0	X												318				DH48

NOTE : SINGLE VERTICAL LOCATED AT 40.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

RED DEER RIVER NEAR ERWOOD - STATION NO. 05LC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1980	APR-NOV #	M-MS	198	APR 15	1	OCT 08 *	---	---	---	---	---
1981	APR-SEP #	M-MS	18	APR 22	1	SEP 30	---	---	---	---	---
1982	APR-OCT #	M-MS	100	APR 20	4	JUN 23	---	---	---	---	---
1983	APR-NOV #	M-MS	583	APR 24 *	2	NOV 01	---	---	---	---	---
1984	APR-OCT	M-MS	102	APR 04	8	SEP 27	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN RIVER ABOVE SIPANOK CHANNEL - STATION NO. OSKD005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : JUN-JUL MEAN LOAD (TONNES)	SUMMARY : JUN-JUL HISTORICAL MEAN LOAD (TONNES)	SUMMARY : JUN-JUL STANDARD ERROR OF MEAN %
1984	MAY-AUG	M-S	1 940	JUN 14 *	85	AUG 09	561 000	JUN 13 *	10 800 000 *	131 000	131 000	---
1985	MAY-AUG	M-S	1 830	JUN 01	50	AUG 07 *	237 000	JUN 01	5 440 000	88 400	98 700	32.7
1986	MAY-JUL	M-S	1 200	JUN 01	80	JUL 13	185 000	MAY 31	4 030 000	88 500	84 800	27.8

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN RIVER AT NIPAWIN - STATION NO. OSKD001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAY-SEP MEAN LOAD (TONNES)	SUMMARY : MAY-SEP HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAY-SEP STANDARD ERROR OF MEAN %
1987	MAY-OCT	M-S	885	MAY 18	15	AUG 28 *	91 600	MAY 17	2 130 000	13 800	13 800	---
1988	APR-OCT	M-S	2 150	JUL 09 *	19	SEP 18	300 000	JUL 09 *	5 800 000 *	30 900	22 400	38.2

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN RIVER BELOW CUMBERLAND HOUSE - STATION NO. OSKH010

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1984	JUN-AUG	M-S	580	JUN 18	60	JUL 08	98 800	JUN 19	2 400 000	---	---	---
1985	MAY-AUG	M-S	645	MAY 11 *	50	JUN 30 *	101 000	MAY 11 *	3 340 000 *	---	---	---
1986	JUN-JUN	M-S	420	JUN 23	85	JUN 21	54 800	JUN 23	301 000	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

SASKATCHEWAN RIVER BELOW TOBIN LAKE - STATION NO. 05KD003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : APR-SEP MEAN LOAD (TONNES)	SUMMARY : APR-SEP HISTORICAL MEAN LOAD (TONNES)	SUMMARY : APR-SEP STANDARD ERROR OF MEAN %
1965	OCT-DEC	M-S	6	OCT 26	3	DEC 09	950	OCT 05	18 800	---	---	---
1966	JAN-DEC	M-C	17	MAY 04	1	JAN 11 *	1 880	JUN 15	71 200	348	348	---
1967	JAN-SEP	M-S	10	SEP 18	3	MAR 20	735	JUN 05	80 200	283	306	13.8
1968	APR-DEC	M-S	23	MAY 18	2	SEP 11	770	APR 23	53 100	239	263	11.7
1969	JAN-DEC	M-C	32	APR 28 *	1	JAN 16	4 860	JUL 07 *	211 000 *	1 030	470	40.0
1970	JAN-DEC	M-C	21	MAY 20	3	AUG 02	1 470	APR 21	131 000	538	483	30.3
1971	MAY-JUN #	M-MS	12	MAY 19	3	JUN 23	---		---	---	---	---
1974	APR-APR	M-MS	22	APR 25	22	APR 25	---		---	---	---	---
1980	JUN-JUN	M-MS	7	JUN 11	7	JUN 11	---		---	---	---	---

M - MANUAL SAMPLING

C - CONTINUOUS OPERATION

S - SEASONAL OPERATION

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN RIVER OLD CHANNEL - STATION NO. 05KH009

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	JUN-SEP #	M-MS	351	JUN 28 *	12	AUG 29	---	---	---	---	---
1973	MAY-OCT #	M-MS	51	MAY 02	5	SEP 27	---	---	---	---	---
1974	APR-AUG #	M-MS	277	APR 30	16	AUG 26	---	---	---	---	---
1975	MAY-MAY	M-MS	13	MAY 01	13	MAY 01	---	---	---	---	---
1976	APR-MAY #	M-MS	5	APR 21	4	MAY 20	---	---	---	---	---
1977	APR-OCT #	M-MS	118	OCT 12	3	SEP 08 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

SHORT CREEK NEAR ROCHE PERCEE - STATION NO. 05NB021

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	MAR-JUN #	M-S	418	APR 13	12	JUN 19	722	APR 13	4 870	---	---	---
1975	MAR-OCT #	M-S	357	APR 29	12	MAY 28	743	APR 28	7 030	---	---	---
1976	MAR-JUL #	M-S	331	MAR 27	10	MAY 31 *	1 050	MAR 28 *	7 540 *	---	---	---
1977	APR-MAY #	M-MS	111	MAY 18	22	APR 05	---		---	---	---	---
1978	MAR-JUL #	M-MS	518	JUN 08 *	18	APR 17	---		---	---	---	---
1979	APR-MAY #	M-MS	370	APR 18	21	MAY 30	---		---	---	---	---
1980	MAR-APR #	M-MS	138	APR 10	33	APR 04	---		---	---	---	---
1981	FEB-FEB	M-MS	234	FEB 17	234	FEB 17	---		---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

SOURIS RIVER NEAR GLEN EWEN - STATION NO. 05ND001

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
MAR 28	11:00	0.5	7.50	B	25	MID												305				DH48
APR 05	15:20	8.0	1.55		13	MID												647				DH48
APR 30	10:00	5.5	0.732		9	MID												632				DH48
MAY 30	08:30	17.0	0.086		10	MID												663				DH48
JUN 28	09:50	22.0	0.023		9	MID												908				DIP

NOTE : SINGLE VERTICAL LOCATED AT MIDSTREAM

DISCHARGE SYMBOL(S): B - ICE CONDITIONS

SOURIS RIVER NEAR GLEN EWEN - STATION NO. 05ND001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1974	MAR-OCT #	M-S	192	APR 18		15	OCT 15		3 110	APR 19		21 500	---	---	---
1975	MAR-OCT #	M-MS	314	MAR 15	*	21	AUG 28		---			---	---	---	---
1976	MAR-OCT #	M-S	221	APR 01		28	JUN 02		3 990	APR 09	*	69 400	* ---	---	---
1977	APR-JUL #	M-MS	41	MAY 16		13	APR 04		---			---	---	---	---
1978	APR-OCT #	M-MS	211	JUL 12		10	MAY 18		---			---	---	---	---
1979	APR-OCT #	M-S	218	APR 21		13	AUG 01		3 090	APR 28		50 200	---	---	---
1980	APR-MAY #	M-MS	58	MAY 26		17	APR 28		---			---	---	---	---
1981	APR-JUN #	M-MS	19	APR 28		6	JUN 02	*	---			---	---	---	---
1982	APR-OCT #	M-MS	180	APR 15		8	OCT 25		---			---	---	---	---
1983	APR-SEP #	M-MS	169	APR 20		10	JUN 29		---			---	---	---	---
1984	MAR-JUN	M-MS	25	MAR 28		9	APR 30		---			---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SOURIS RIVER NEAR HALBRITE - STATION NO. 05ND017

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	APR-JUL #	M-S	437	APR 30		44	JUL 08		3 250	APR 30	*	33 100	---	---	---
1976	MAR-NOV #	M-S	714	MAY 03	*	7	NOV 03	*	2 880	APR 21		80 100	* ---	---	---
1977	APR-MAY #	M-MS	63	MAY 16		17	APR 14		---			---	---	---	---
1978	MAR-OCT #	M-MS	86	APR 03		17	AUG 01		---			---	---	---	---
1979	APR-JUL #	M-MS	298	MAY 10		120	JUL 18		---			---	---	---	---
1980	MAR-APR #	M-MS	86	APR 08		36	APR 03		---			---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

SOUTH SASKATCHEWAN RIVER AT SASKATOON - STATION NO. 05HG001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	SUMMARY : JAN-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY : JAN-DEC STANDARD ERROR OF MEAN %
1961	JUN-DEC	M-S	380	JUN 24	5	DEC 12	18 200	JUN 24	255 000	---	---	---
1962	JAN-DEC	M-C	1 970	APR 18	11	JAN 19	139 000	APR 18	1 700 000	4 880	4 880	---
1963	JAN-DEC	M-C	2 510	JUL 07 #	8	JAN 07	323 000	JUL 08 *	4 060 000 *	11 100	7 880	40.8
1964	JAN-DEC	M-C	1 610	JUN 18	5	SEP 11	198 000	JUN 18	3 760 000	10 300	8 890	23.3
1965	JAN-DEC	M-C	700	JUN 27	3	DEC 01 *	88 800	JUN 27	2 460 000	8 750	8 200	18.4
1966	JAN-DEC	M-C	680	APR 07	3	SEP 02	67 000	JUN 13	1 520 000	4 180	7 380	19.3
1967	JAN-DEC	M-C	235	JUL 05	3	SEP 04	10 900	JUL 05	404 000	1 110	8 350	24.6
1968	JAN-DEC	M-C	75	NOV 08	2	MAY 24	2 500	NOV 03	91 900	251	5 480	28.8
1969	JAN-DEC	M-C	1 910	JUL 04	13	SEP 10	283 000	JUL 05	1 950 000	5 330	5 480	25.1
1970	JAN-DEC	M-C	108	JUN 25	4	SEP 08	3 540	JUN 25	228 000	627	4 920	28.8
1971	JAN-DEC	M-C	83	JUN 16	2	SEP 08	2 980	JUN 16	170 000	467	4 480	28.2
1975	JUN-JUN #	M-MS	2 110	JUN 24	257	JUN 30	---		---	---	---	---

M - MANUAL SAMPLING

C - CONTINUOUS OPERATION S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SOUTH SASKATCHEWAN RIVER NEAR LEMSFORD - STATION NO. 05HB001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	SUMMARY : JAN-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY : JAN-DEC STANDARD ERROR OF MEAN %
1961	JUL-DEC	M-S	500	AUG 02	8	DEC 15	7 800	AUG 05	178 000	---	---	---
1962	JAN-DEC	M-C	2 880	JUL 17	12	MAR 07	83 000	JUL 17	1 640 000	4 500	4 500	---
1963	JAN-DEC	M-C	4 340	JUL 04	5	NOV 22	830 000	JUL 04	4 430 000	12 100	8 300	45.8
1964	JAN-DEC	M-C	5 300	JUN 13	8	DEC 28	824 000	JUN 13	6 990 000	19 100	11 800	35.4
1965	JAN-DEC	M-C	3 310	JUN 22	3	JAN 12 *	528 000	JUN 22	8 820 000	24 200	15 000	26.6
1966	JAN-DEC	M-C	4 120	JUL 08	7	JAN 27	325 000	JUL 08	4 740 000	13 000	14 600	22.8
1967	JAN-DEC	M-C	5 100	JUN 04	8	NOV 15	1 080 000	JUN 04	11 400 000 *	31 300	17 400	22.4
1968	JAN-DEC	M-C	3 730	JUL 28	5	JAN 11	88 400	JUN 15	2 410 000	6 590	15 800	23.0
1969	JAN-DEC	M-C	4 950	APR 09	5	FEB 17	1 100 000	APR 08 *	9 580 000	26 200	17 100	19.9
1970	JAN-DEC	M-C	5 180	JUN 19	5	FEB 13	752 000	JUN 19	5 110 000	14 000	16 800	18.0
1971	JAN-NOV #	M-MS	2 720	APR 16	5	JAN 21	---		---	---	---	---
1975	JUN-JUN	M-MS	5 800	JUN 24 *	2 980	JUN 26	---		---	---	---	---

M - MANUAL SAMPLING

C - CONTINUOUS OPERATION S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SOUTH SASKATCHEWAN RIVER NEAR OUTLOOK - STATION NO. 05HF001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAY-SEP MEAN LOAD (TONNES)	SUMMARY : MAY-SEP HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAY-SEP STANDARD ERROR OF MEAN %
1948	MAY-OCT	M-S	1 970	MAY 31	50	SEP 10	462 000	MAY 30 *	7 630 000	---	---	---
1949	APR-OCT	M-S	580	JUN 03	85	MAY 05	26 900	APR 05	985 000	4 720	4 720	---
1950	APR-OCT	M-S	1 580	JUN 24	65	OCT 05	202 000	JUN 30	4 010 000	23 500	14 100	65.6
1951	APR-OCT	M-S	2 940	APR 08	115	AUG 17	287 000	APR 08	13 100 000 *	68 100	32 100	54.6
1952	APR-OCT	M-S	1 690	APR 17	85	OCT 08	350 000	JUN 30	5 380 000	25 000	30 300	44.3
1955	APR-OCT	M-S	3 370	MAY 27	30	OCT 25	276 000	MAY 27	3 710 000	22 100	25 700	36.6
1956	MAY-OCT	M-S	1 930	MAY 28	85	SEP 18	188 000	MAY 28	3 020 000	19 600	27 200	32.1
1957	MAY-OCT	M-S	1 230	MAY 13	40	JUL 30	81 000	MAY 13	1 780 000	11 300	24 900	31.0
1958	APR-OCT	M-S	3 470	APR 11 *	34	AUG 25	282 000	APR 11	4 840 000	12 800	23 400	29.3
1959	APR-SEP	M-S	2 170	JUL 04	70	MAY 05	249 000	JUL 04	3 870 000	23 900	23 400	25.8
1960	MAY-AUG	M-S	955	MAY 21	41	AUG 11	54 700	MAY 21	1 120 000	---	---	---
1961	APR-AUG #	M-S	1 600	JUN 05	7	APR 28 *	148 000	JUN 05	1 940 000	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

STURGEON RIVER NEAR PRINCE ALBERT - STATION NO. 05GF002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 05	11:40	0.5	6.31	B	116	MID													351				DH59
APR 06	12:20	0.5	6.25	B	217	MID													339				DH59
APR 09	12:10	3.0	10.8		203	MID													380				DH59
APR 11	11:55	4.0	11.1		132	MID													423				DH59
APR 17	13:40	9.0	8.83		84	MID													407				DH59
MAY 02	14:40	10.0	3.37		16	MID	X												514				DH59
JUN 05	11:20	14.0	1.91		76	MID													492				DH59
AUG 30	14:30	14.0	0.512		59	MID	X												526				DH59
OCT 05	14:55	9.0	0.339		122	MID	X												462				DH59

NOTE : SINGLE VERTICAL LOCATED AT MIDSTREAM

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

STURGEON RIVER NEAR PRINCE ALBERT - STATION NO. 05GF002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1984	APR-OCT	M-MS	217	APR 06 *	16	MAY 02 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

SWAN RIVER NEAR NORQUAY - STATION NO. 05LE005

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		INSTANT. CONCENT. (mg/L)	SINGLE SAMPLING VERTICAL (m)		PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	SILT	CLAY	TYPE OF SAMPLER
APR 05	13:50	1.0	12.6	B	358	1.0	X												284				DH59
APR 10	12:00	3.0	26.3		410	24.0	X												200				DH59
MAY 24	14:10	9.0	44.6		159	25.0													215				DH59
JUN 28	10:15	20.5	10.7		57	25.0													288				DH59
OCT 11	15:00	13.0	1.01		30	7.5	X												427				DH48

NOTE : SINGLE VERTICAL LOCATED AT 25.0 METRES

DISCHARGE SYMBOL(S): B - ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

SWAN RIVER NEAR NORQUAY - STATION NO. 05LE005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1981	MAY-NOV #	M-MS	86	NOV 03	14	JUN 30	---	---	---	---	---
1982	APR-OCT #	M-MS	331	JUL 21	13	OCT 05	---	---	---	---	---
1983	APR-NOV #	M-MS	341	APR 28	6	AUG 31 *	---	---	---	---	---
1984	APR-OCT	M-MS	410	APR 10 *	20	OCT 11	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

SWEETWATER CREEK NEAR STAR CITY - STATION NO. 05KB012

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1979	APR-APR #	M-MS	89 APR 05 *	3 APR 23 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CANAL AT SWIFT CURRENT - STATION NO. 05ND034

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	SEP-OCT #	M-MS	8 SEP 05 *	8 OCT 03 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CREEK AT SWIFT CURRENT - STATION NO. 05ND007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	SEP-OCT #	M-MS	8 SEP 05 *	8 OCT 03 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

\# - PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CREEK BELOW PELLETIER CREEK - STATION NO. 05ND030

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	OCT-OCT	M-MS	5 OCT 04 *	5 OCT 04 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CREEK BELOW ROCK CREEK - STATION NO. 05HD036

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	APR-OCT #	M-MS	84	APR 10	10	MAY 07	---		---		---	---	---
1975	MAY-SEP #	M-MS	57	MAY 29	2	AUG 11 *	---		---		---	---	---
1976	MAR-NOV #	M-MS	184	MAR 21	5	OCT 05	---		---		---	---	---
1977	MAR-NOV #	M-MS	24	APR 05	5	JUN 08	---		---		---	---	---
1978	MAR-NOV #	M-MS	230	MAR 31 *	4	JUN 28	---		---		---	---	---
1979	APR-JUN #	M-MS	68	APR 25	11	JUN 08	---		---		---	---	---
1980	MAR-JUN #	M-MS	73	MAY 08	2	JUN 10	---		---		---	---	---
1981	FEB-FEB	M-MS	80	FEB 23	80	FEB 23	---		---		---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CREEK NEAR LEINAN - STATION NO. 05HD038

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1973	MAR-OCT #	M-MS	41	MAR 27	4	OCT 03	---		---		---	---	---
1974	MAR-NOV #	B-MS	1 050	APR 18	7	JUN 20	---		---		---	---	---
1975	APR-OCT #	B-S	1 120	APR 23	7	OCT 30	3 100	APR 23 *	13 500	*	---	---	---
1976	MAR-NOV #	M-MS	220	MAR 31	13	MAY 03	---		---		---	---	---
1977	FEB-NOV	B-S	2 430	MAY 28 *	10	NOV 01	414	MAY 28	1 280		5.21	5.21	---
1978	MAR-OCT	B-S	183	MAR 28	4	JUN 01	85.5	MAR 28	734		3.00	4.11	28.9
1979	MAR-OCT	B-S	503	APR 18	5	AUG 09	1 810	APR 19	7 480		30.8	12.8	68.6
1980	MAR-JUL #	M-S	73	APR 03	2	JUL 28 *	72.2	MAR 21	536		---	---	---
1981	MAR-JUN #	M-MS	18	MAR 25	3	JUN 22	---		---		---	---	---
1982	APR-JUL #	M-MS	889	APR 14	7	MAY 25	---		---		---	---	---

B - BOTH AUTOMATIC AND MANUAL SAMPLING M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SWIFT CURRENT CREEK NEAR THE MOUTH - STATION NO. 05HD037

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1965	APR-DEC #	M-S	3 670	APR 19	3	SEP 10	10 600	APR 18	41 100		---	---	---
1966	JAN-DEC #	M-S	1 080	MAR 27	1	JUN 03 *	2 650	MAR 20	27 800		113	113	---
1967	JAN-OCT #	M-S	4 050	APR 14	5	SEP 23	34 700	APR 14 *	153 000	*	623	388	89.3
1968	FEB-DEC #	M-S	426	MAR 05	2	SEP 17	285	MAR 05	2 190		8.85	248	78.5
1969	FEB-DEC #	M-S	2 780	APR 08	1	JUN 07	24 900	APR 08	84 800		348	373	80.0
1970	JAN-NOV #	M-S	3 980	APR 08	4	JAN 07	28 500	APR 07	104 000		428	303	38.3
1971	MAR-OCT	M-S	4 340	APR 08 *	8	SEP 28	30 600	APR 08	98 000		382	318	36.6
1972	MAR-OCT	M-S	355	APR 06	1	AUG 04	233	MAR 19	1 430		5.85	273	32.6
1973	MAR-MAY	M-MS	89	MAR 18	10	APR 09	---		---		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE * - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

WASCANA CREEK BELOW KRONAU MARSH - STATION NO. 05JF012

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1979	APR-MAY	M-S	415	MAY 09 *	172	MAY 03 *	713	APR 26 *	4 880	*	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

* - EXTREME FOR PERIOD OF RECORD

WASCANA CREEK NEAR LUMSDEN - STATION NO. 05JF005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1973	MAR-APR #	M-MS	32	APR 04	20	MAR 23	---		---		---	---	---
1974	APR-OCT #	M-MS	784	APR 30	18	JUN 26	---		---		---	---	---
1975	APR-AUG #	M-S	884	APR 23	13	AUG 13	4 080	APR 23	78 000		---	---	---
1976	MAR-OCT #	M-S	1 280	APR 06 *	17	SEP 16	9 470	APR 06 *	116 000	*	---	---	---
1977	APR-NOV #	M-MS	318	JUL 12	11	MAY 17	---		---		---	---	---
1978	MAR-NOV #	M-S	285	APR 11	11	JUN 21	348	APR 06	3 830		---	---	---
1979	APR-NOV #	M-S	617	APR 24	10	NOV 02 *	3 550	APR 25	28 800		---	---	---
1980	APR-OCT #	M-S	447	APR 15	12	JUN 10	435	APR 05	3 940		---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

WASCANA CREEK NEAR RICHARDSON - STATION NO. 05JF009

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : APR-JUL MEAN LOAD (TONNES)	SUMMARY : APR-JUL HISTORICAL MEAN LOAD (TONNES)	SUMMARY : APR-JUL STANDARD ERROR OF MEAN %
1962	JAN-DEC	M-C	230	APR 11	0	APR 30 *	109	APR 11	584		4.79	4.79	---
1963	JAN-DEC	M-C	794	APR 30 *	18	JUN 26	5.36	MAR 25	80.2		0.39	2.59	84.9
1964	APR-OCT	M-S	80	JUL 06	0	MAY 01	16.5	JUL 05	78.9		0.65	1.84	73.5
1965	APR-SEP	M-S	145	APR 12	4	MAY 07	126	APR 12	471		3.87	2.43	46.0
1966	MAR-OCT	M-S	230	APR 06	17	MAR 28	180	MAR 31	1 740		11.1	4.15	45.6
1967	MAR-OCT	M-S	330	APR 21	55	MAY 15	436	APR 21	3 380		27.7	8.06	52.4
1968	MAR-MAR	M-S	467	MAR 10	19	MAR 27	285	MAR 10	899		---	---	---
1969	APR-JUL	M-S	422	APR 24	126	APR 18	634	APR 14	7 660		82.8	15.9	54.1
1970	MAR-OCT	M-S	389	MAY 03	30	JUN 06	321	APR 09	4 770		38.1	18.8	42.5
1971	MAR-OCT	M-S	610	APR 11	107	APR 28	3 940	APR 11	19 800		162	34.7	50.1
1972	MAR-OCT	M-S	487	MAR 24	12	APR 01	116	MAR 24	570		3.10	31.8	50.3
1974	APR-MAY #	M-S	782	MAY 02	127	MAY 27	4 280	APR 23 *	32 100	*	---	---	---
1975	APR-MAY	M-S	784	MAY 06	115	APR 19	2 660	MAY 06	22 800		---	---	---
1978	APR-MAY #	M-MS	682	APR 17	170	APR 02	---		---		---	---	---

M - MANUAL SAMPLING

C - CONTINUOUS OPERATION

S - SEASONAL OPERATION

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

WATERHEN RIVER NEAR GOODSOIL - STATION NO. 05AF005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-OCT MEAN LOAD (TONNES)	SUMMARY : MAR-OCT HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-OCT STANDARD ERROR OF MEAN %
1979	MAR-NOV #	M-S	7 JUL 10 *	2 APR 21 *	15.0 JUL 15 *	1 530 *	8.21	8.21	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

WHITE FOX RIVER NEAR GARRICK - STATION NO. 05KE005

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	226 APR 26 *	226 APR 26 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

WHITESAND RIVER NEAR CANORA - STATION NO. 05MB003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1979	APR-MAY #	M-MS	87 APR 24 *	4 MAY 10 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

WILLIAN RIVER ABOVE CARSWELL RIVER - STATION NO. 07MA004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1982	AUG-OCT #	M-MS	4 OCT 08 *	3 AUG 25 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

SASKATCHEWAN

WIWA CREEK NEAR GRAVELBOURG - STATION NO. 05JC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1972	APR-APR	M-MS	24 APR 10 *	24 APR 10 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

WOOD RIVER NEAR LAFLECHE - STATION NO. 05JA002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1984

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		INSTANT. CONCENT. (mg/L)	SINGLE VERTICAL SAMPLING (m)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	DISSOLVED SOLIDS (mg/L)	PERCENT SAND	PERCENT SILT	PERCENT CLAY	TYPE OF SAMPLER
MAR 28	12:30	1.5	4.05	W	89	MID												730				DH48
APR 04	13:45		1.02		49	MID												860				DH48
APR 17	18:50		0.298		21	MID												1120				DH48

NOTE : SINGLE VERTICAL LOCATED AT MIDSTREAM

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS

WOOD RIVER NEAR LAFLECHE - STATION NO. 05JA002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1984	MAR-APR	M-MS	89 MAR 28 *	21 APR 17 *	---	---	---	---	---

M - MANUAL SAMPLING

MS - MISCELLANEOUS OPERATION

* - EXTREME FOR PERIOD OF RECORD

YELLOW GRASS DITCH NEAR YELLOW GRASS - STATION NO. 05NB011

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF RECORD	TYPE OF OPERATION	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1974	MAR-JUN #	M-S	1 280 MAY 02 *	123 JUN 21	3 890 MAY 02 *	45 800	---	---	---
1975	MAR-JUL #	M-S	470 APR 30	87 APR 19	1 810 MAY 03	27 900	---	---	---
1976	MAR-AUG #	M-S	1 230 MAY 05	48 AUG 25 *	2 820 APR 17	85 800 *	---	---	---
1977	APR-APR #	M-MS	81 APR 13	54 APR 05	---	---	---	---	---
1978	APR-JUL #	M-MS	868 JUL 05	115 APR 24	---	---	---	---	---
1979	APR-JUL #	M-MS	554 MAY 24	119 JUN 20	---	---	---	---	---
1980	APR-APR #	M-MS	328 APR 03	85 APR 08	---	---	---	---	---

M - MANUAL SAMPLING

S - SEASONAL OPERATION

MS - MISCELLANEOUS OPERATION

- PERIOD OF RECORD INCOMPLETE

* - EXTREME FOR PERIOD OF RECORD

STA. NO.	NAME	PAGE
05EF005	BIG GULLY CREEK NEAR MAIDSTONE	2
05FF001	BATTLE RIVER AT BATTLEFORD	1
05EC006	EAGLE CREEK NEAR ENVIRON	9
05GD001	NORTH SASKATCHEWAN RIVER NEAR BORDEN	21
05EF002	STURGEON RIVER NEAR PRINCE ALBERT	29
05GG001	NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT	17
05HA072	GAP CREEK ABOVE JUNCTION RESERVOIR	11
05HB001	SOUTH SASKATCHEWAN RIVER NEAR LEMSFORD	28
05HD007	SWIFT CURRENT CREEK AT SWIFT CURRENT	30
05HD030	SWIFT CURRENT CREEK BELOW PELLETIER CREEK	30
05HD034	SWIFT CURRENT CANAL AT SWIFT CURRENT	30
05HD035	SWIFT CURRENT CREEK BELOW ROCK CREEK	31
05HD037	SWIFT CURRENT CREEK NEAR THE MOUTH	31
05HD038	SWIFT CURRENT CREEK NEAR LEINAN	31
05HF001	SOUTH SASKATCHEWAN RIVER NEAR OUTLOOK	25
05HG001	SOUTH SASKATCHEWAN RIVER AT SASKATOON	28
05JA002	WOOD RIVER NEAR LAFLECHE	34
05JA003	MCDONALD CREEK NEAR MCCORD	14
05JA004	PINTO CREEK NEAR WOODROW	22
05JC001	WIWA CREEK NEAR GRAVELBOURG	34
05JE001	MOOSE JAW RIVER ABOVE THUNDER CREEK	15
05JE004	MOOSE JAW RIVER NEAR ROULEAU	16
05JE005	MOOSE JAW RIVER NEAR BURDICK	15
05JF001	QU'APPELLE RIVER NEAR LUMSDEN	23
05JF005	WASCANA CREEK NEAR LUMSDEN	32
05JF009	WASCANA CREEK NEAR RICHARDSON	32
05JF011	COTTONWOOD CREEK NEAR LUMSDEN	7
05JF012	WASCANA CREEK BELOW KRONAU MARSH	32
05JG004	QU'APPELLE RIVER ABOVE BUFFALO POUND LAKE	23
05JK004	JUMPING DEER CREEK NEAR LIPTON	13
05JL002	INDIANHEAD CREEK NEAR INDIAN HEAD	12
05JL005	PHEASANT CREEK NEAR ABERNETHY	22
05JM001	QU'APPELLE RIVER NEAR WELBY	23
05JM003	QU'APPELLE RIVER AT TANTALLON	23
05JM010	EKAPO CREEK NEAR MARIEVAL	9
05JM015	CUTARM CREEK NEAR SPY HILL	7
05KA001	CARROT RIVER NEAR KINISTINO	8
05KA008	GOOSEHUNTING CREEK NEAR BEATTY	11
05KB001	MELFORT CREEK NEAR MELFORT	15
05KB003	CARROT RIVER NEAR ARMLEY	5
05KB005	BURNTOUT BROOK NEAR ARBORFIELD	4
05KB006	LEATHER RIVER NEAR STAR CITY	13
05KB009	DOGHIDE RIVER BELOW TISDALE	8
05KB010	LEATHER RIVER BELOW PRESBYTERIAN RIVER	13
05KB011	DOGHIDE RIVER NEAR RUNCIMAN	8
05KB012	SWEETWATER CREEK NEAR STAR CITY	30
05KB013	PRESBYTERIAN RIVER ABOVE LEATHER RIVER	32
05KC001	CARROT RIVER NEAR SMOKY BURN	6
05KC002	CONNELL CREEK NEAR CONNELL CREEK	7
05KD001	SASKATCHEWAN RIVER AT NIPAWIN	25
05KD003	SASKATCHEWAN RIVER BELOW TOBIN LAKE	26
05KD005	SASKATCHEWAN RIVER ABOVE SIPANOK CHANNEL	25
05KE005	WHITE FOX RIVER NEAR GARRICK	33
05KH009	SASKATCHEWAN RIVER OLD CHANNEL	26
05KH010	SASKATCHEWAN RIVER BELOW CUMBERLAND HOUSE	25
05LB002	ETOMAMI RIVER NEAR BERTWELL	10
05LC001	RED DEER RIVER NEAR ERWOOD	24
05LD003	OVERFLOWING RIVER NEAR HUDSON BAY	21
05LE006	SWAN RIVER NEAR NORQUAY	28
05MB003	WHITESAND RIVER NEAR CANORA	33
05MD004	ASSINIBOINE RIVER AT KAMSACK	1
05NA003	LONG CREEK AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY	14
05NA004	LONG CREEK NEAR MAXIM	14
05NB011	YELLOW GRASS DITCH NEAR YELLOW GRASS	34
05NB014	JEWEL CREEK NEAR GOODWATER	12
05NB017	SOURIS RIVER NEAR HALBRITE	27
05NB021	SHORT CREEK NEAR ROCHE PERCEE	26
05ND001	SOURIS RIVER NEAR GLEN EWEN	27
05ND004	MOOSE MOUNTAIN CREEK NEAR OXBOW	16
05NE001	PIPESTONE CREEK NEAR MOOSOMIN	22
05NF010	ANTLER RIVER NEAR WAUCHOPE	1
05NF013	GAINSBOROUGH CREEK NEAR STORTHOAKS	11
05AD001	BEAVER RIVER NEAR DORINTOSH	2
05AF006	WATERHEN RIVER NEAR GOODSOIL	33
05BC001	MUDJATIK RIVER NEAR FORCIER LAKE	16
05BD001	NAULTAIN RIVER ABOVE NORBERT RIVER	12
07HA004	WILLIAN RIVER ABOVE CARSWELL RIVER	33
11AB018	NASHLYN CANAL NEAR CONSUL	16
11AB077	CYPRESS LAKE WEST OUTFLOW CANAL	8
11AB078	CYPRESS LAKE WEST INFLOW CANAL	8
11AC041	FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY	10
11AC051	FRENCHMAN RIVER BELOW VAL MARIE	11

NAME	STA. NO.	PAGE
ANTLER RIVER NEAR WAUCHOPE	05NF010	1
ASSINIBOINE RIVER AT KAMSACK	05ND004	1
BATTLE RIVER AT BATTLEFORD	05FF001	1
BEAVER RIVER NEAR DORINTOSH	05AD001	2
BIG GULLY CREEK NEAR MAIDSTONE	05EF005	2
BURNTOUT BROOK NEAR ARBORFIELD	05KB005	4
CARROT RIVER NEAR ARMLEY	05KB003	5
CARROT RIVER NEAR KINISTINO	05KA001	6
CARROT RIVER NEAR SMOKY BURN	05KC001	6
CONNELL CREEK NEAR CONNELL CREEK	05KC002	7
COTTONWOOD CREEK NEAR LUMSDEN	05JF011	7
CUTARM CREEK NEAR SPY HILL	05JM015	7
CYPRESS LAKE WEST INFLOW CANAL	11AB076	8
CYPRESS LAKE WEST OUTFLOW CANAL	11AB077	8
DOGHIDE RIVER BELOW TISDALE	05KB005	8
DOGHIDE RIVER NEAR RUNCIMAN	05KB011	8
EAGLE CREEK NEAR ENVIRON	05GC006	9
EKAPO CREEK NEAR MARIEVAL	05JM010	9
ETOMAMI RIVER NEAR BERTWELL	05LB002	10
FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY	11AC041	10
FRENCHMAN RIVER BELOW VAL MARIE	11AC051	11
GAINSBOROUGH CREEK NEAR STORTHOAKS	05NF013	11
GAP CREEK ABOVE JUNCTION RESERVOIR	05HA072	11
GOOSEHUNTING CREEK NEAR BEATTY	05KA008	11
HAULTAIN RIVER ABOVE NORBERT RIVER	06BD001	12
INDIANHEAD CREEK NEAR INDIAN HEAD	05JL002	12
JEWEL CREEK NEAR GOODWATER	05NB014	12
JUMPING DEER CREEK NEAR LIPTON	05JK004	13
LEATHER RIVER BELOW PRESBYTERIAN RIVER	05KB010	13
LEATHER RIVER NEAR STAR CITY	05KB006	13
LONG CREEK AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY	05HA003	14
LONG CREEK NEAR MAXIM	05HA004	14
MCDONALD CREEK NEAR MCCORD	05JA003	14
MELFORT CREEK NEAR MELFORT	05KB001	15
MOOSE JAW RIVER ABOVE THUNDER CREEK	05JE001	15
MOOSE JAW RIVER NEAR BURDICK	05JE005	15
MOOSE JAW RIVER NEAR ROULEAU	05JE004	16
MOOSE MOUNTAIN CREEK NEAR OXBOW	05ND004	16
MUDJATIK RIVER NEAR FORCIER LAKE	05BC001	16
NASHLYN CANAL NEAR CONSUL	11AB018	16
NORTH SASKATCHEWAN RIVER AT PRINCE ALBERT	05EE001	17
NORTH SASKATCHEWAN RIVER NEAR BORDEN	05ED001	21
OVERFLOWING RIVER NEAR HUDSON BAY	05LD003	21
PHEASANT CREEK NEAR ABERNETHY	05JL005	22
PINTO CREEK NEAR WOODROW	05JA004	22
PIPESTONE CREEK NEAR MOOSOMIN	05NE001	22
PRESBYTERIAN RIVER ABOVE LEATHER RIVER	05KB013	22
QU'APPELLE RIVER ABOVE BUFFALO POUND LAKE	05JE004	23
QU'APPELLE RIVER AT TANTALLON	05JH003	23
QU'APPELLE RIVER NEAR LUMSDEN	05JF001	23
QU'APPELLE RIVER NEAR WELBY	05JH001	23
RED DEER RIVER NEAR ERWOOD	05LC001	24
SASKATCHEWAN RIVER ABOVE SIPANOK CHANNEL	05KD005	25
SASKATCHEWAN RIVER AT NIPAWIN	05KD001	25
SASKATCHEWAN RIVER BELOW CUMBERLAND HOUSE	05KH010	25
SASKATCHEWAN RIVER BELOW TOBIN LAKE	05KD003	26
SASKATCHEWAN RIVER OLD CHANNEL	05KH009	26
SHORT CREEK NEAR ROCHE PERCEE	05NB021	26
SOURIS RIVER NEAR GLEN EWEN	05ND001	27
SOURIS RIVER NEAR HALBRITE	05NB017	27
SOUTH SASKATCHEWAN RIVER AT SASKATOON	05HG001	28
SOUTH SASKATCHEWAN RIVER NEAR LEMSFORD	05HB001	28
SOUTH SASKATCHEWAN RIVER NEAR OUTLOOK	05HF001	28
STURGEON RIVER NEAR PRINCE ALBERT	05EF002	29
SWAN RIVER NEAR NORQUAY	05LE006	29
SWEETWATER CREEK NEAR STAR CITY	05KB012	30
SWIFT CURRENT CANAL AT SWIFT CURRENT	05HD034	30
SWIFT CURRENT CREEK AT SWIFT CURRENT	05HD007	30
SWIFT CURRENT CREEK BELOW PELLETIER CREEK	05HD030	30
SWIFT CURRENT CREEK BELOW ROCK CREEK	05HD035	31
SWIFT CURRENT CREEK NEAR LEIHAN	05HD038	31
SWIFT CURRENT CREEK NEAR THE MOUTH	05HD037	31
WASCANA CREEK BELOW KRONAU MARSH	05JF012	32
WASCANA CREEK NEAR LUMSDEN	05JF005	32
WASCANA CREEK NEAR RICHARDSON	05JF008	32
WATERHEN RIVER NEAR GOODSOIL	05AF005	33
WHITE FOX RIVER NEAR GARRICK	05KE006	33
WHITESAND RIVER NEAR CANORA	05NE003	33
WILLIAM RIVER ABOVE CARSWELL RIVER	07MA004	33
WIWA CREEK NEAR GRAVELBOURG	05JC001	34
WOOD RIVER NEAR LAFLECHE	05JA003	34
YELLOW GRASS DITCH NEAR YELLOW GRASS	05NB011	34